360472

ACTION MEMORANDUM-RV3

DATE: SEP 22 2008

SUBJECT: Request for Authorization of a Removal Action, Ceiling Increase and 12-Month Exemption at the Cornell-Dubilier Electronics Site, South Plainfield, Middlesex County, New Jersey

FROM: James Kearns, On-Scene Coordinator
Removal Action Branch

TO: Alan J. Steinberg
Regional Administrator

THRU: George Pavlou, Acting Director
Emergency and Remedial Response Division

Site ID #: GZ

I. PURPOSE

The purpose of this Action Memorandum is to request authorization and document approval of the proposed removal action described herein, a ceiling increase and a 12-month exemption for the Cornell-Dubilier Electronics Site ("Site"), located on Hamilton Boulevard, south of the Conrail railroad tracks, in South Plainfield, Middlesex County, New Jersey, 07080. This removal action is proposed as an interim measure to stabilize the Bound Brook and wetlands areas by containment of capacitors, capacitor debris, and wood blocks that have been found to contain high levels of polychlorinated biphenyl ("PCB") contamination, pending implementation of the remedy for the affected area.

This Action Memorandum requests the authorization of $562,200 in Direct Extramural Funds, of which $426,000 is from the Regional Removal Advice of Allowance for mitigation contracting.

CONCURRENCES

NAME: Cornell-Dubilier Electronics INIT: rsb Date: 9/3/08 Filename: AM#0316

Symbol	ERRD-RAB	ERRD-RAB	ERRD-RAB	ORC-NJSB	ORC-NJSB	ORC-NJSB	ERRD-SIT	ERRD-DD	ERRD-AD
Surname	Kearns	Thornton	Borgia	Flanagan	Mellott	Karlen	Basso	LaPadula	Pavlou
	9/8/08	9/8/08	9/11/08	9/8/08	9/11/08	9/11/08	9/12/08	9/22/08	C. SERVIDIO 9/23/08

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

R

ACTION MEMORANDUM-RV3

DATE: SEP 22 2008

SUBJECT: Request for Authorization of a Removal Action, Ceiling Increase and 12-Month Exemption at the Cornell-Dubilier Electronics Site, South Plainfield, Middlesex County, New Jersey

FROM: James Kearns, On-Scene Coordinator
Removal Action Branch

TO: Alan J. Steinberg
Regional Administrator

THRU: George Pavlou, Acting Director
Emergency and Remedial Response Division

Site ID #: GZ

I. PURPOSE

The purpose of this Action Memorandum is to request authorization and document approval of the proposed removal action described herein, a ceiling increase and a 12-month exemption for the Cornell-Dubilier Electronics Site ("Site"), located on Hamilton Boulevard, south of the Conrail railroad tracks, in South Plainfield, Middlesex County, New Jersey, 07080. This removal action is proposed as an interim measure to stabilize the Bound Brook and wetlands areas by containment of capacitors, capacitor debris, and wood blocks that have been found to contain high levels of polychlorinated biphenyl ("PCB") contamination, pending implementation of the remedy for the affected area.

This Action Memorandum requests the authorization of $562,200 in Direct Extramural Funds, of which $426,000 is from the Regional Removal Advice of Allowance for mitigation contracting.

If approved, the total Direct Extramural project ceiling for the CDE Site (for this removal action and earlier removal activities) would be increased to $1,022,300, of which $820,622 would be for mitigation contracting. Conditions at the Site meet the criteria for a removal action under the Comprehensive Environmental Resource Compensation and Liability Act ("CERCLA"), as documented in Section 300.415(b)(2) of the National Contingency Plan ("NCP"). This is the

third removal action conducted by the U.S. Environmental Protection Agency ("EPA") Removal Action Branch ("RAB") at the Site. A 12-month exemption was previously approved as part of the Action Memorandums approved on September 23, 1998, August 15, 2001 and June 28, 2004.

II. SITE CONDITIONS AND BACKGROUND

The Comprehensive Environmental Response, Compensation and Liability Information System ID Number for the Site is NJD981557879. The proposed removal action is considered time-critical.

From 1936 to 1962, Cornell-Dubilier Electronics, Inc. ("CDE") operated at an approximately 26-acre property located at 333 Hamilton Boulevard in South Plainfield, New Jersey, manufacturing capacitors. During CDE's period of operation, hazardous substances including PCBs and trichloroethylene ("TCE") were released and disposed of in and on facility soils. PCBs, TCE, and other hazardous substances, have been detected in the soils, buildings and groundwater at the former CDE facility, and PCBs have been found in the sediments of the Bound Brook and adjacent low lying wetland areas (the "Bound Brook Corridor"). The former CDE facility has more recently been known as the Hamilton Industrial Park.

The Site is being addressed in four operable units. To date, EPA has issued a Record of Decision ("ROD") for both Operable Unit 1 ("OU1"), which concerns contaminated residential, commercial and municipal properties located in the vicinity of the former CDE facility, and Operable Unit 2 ("OU2"), which addresses the contaminated soils and buildings at the former CDE facility. Operable Unit 3 ("OU3") will address contaminated site groundwater and associated soil vapor, and Operable Unit 4 ("OU4") will address contaminated sediments of the Bound Brook Corridor.

Occasional flooding events have caused erosion of a portion of the Bound Brook banks near the former CDE facility, and erosion of the banks in the southern end of the facility that borders the wetlands. This erosion has resulted in the release of capacitors, capacitor-associated debris and PCB-contaminated wood blocks to the Brook. A Site Map is included as Appendix 1.

A. Site Description

1. Removal site evaluation (RSE)

The RAB received a request from the EPA New Jersey Remediation Branch ("NJRB") on August 20, 2007 to evaluate a portion of the Site for a CERCLA removal action. The request focused on the Bound Brook and the recent findings of additional capacitors in the stream corridor. A copy of the NJRB request is included in Appendix 2.

Prior to 1936, Spicer Manufacturing Corp., a predecessor to Dana Corporation ("Dana"), owned and operated the facility, and many of the buildings were from this era. Spicer Manufacturing Corp. ceased operations in South Plainfield in 1929 and, beginning in 1936, leased the property to CDE. CDE operated at the facility from 1936 to 1962, manufacturing electronic components

including capacitors. CDE purchased the facility from Dana in 1956. PCBs and chlorinated organic solvents were used in the manufacturing process, and the company disposed of PCB-contaminated waste materials and other hazardous substances directly on the facility property throughout its operational history.

CDE's activities led to widespread chemical contamination at the facility, as well as migration of contaminants to areas nearby the facility. PCBs have been detected in the groundwater, soils and in building interiors at the former industrial park, at adjacent residential, commercial, and municipal properties, and in the surface water and sediments of the Bound Brook. High levels of volatile organic compounds ("VOCs") have been found in the facility soils and in groundwater.

CDE sold the facility property to Lamitex, Inc. and C.R.D. Realty Corp. in 1961. Following CDE's departure from the facility in 1962, it was operated as a rental property. Over 100 commercial and industrial companies occupied the facility as tenants between 1962 and 2007. Some of these tenants may have contributed to Site contamination. D.S.C. of Newark Enterprises, Inc. ("DSC"), a corporation under common ownership with former owners Lamitex, Inc. and C.R.D. Realty Corp., has owned the property since 1976.

In June 1994, at the request of the New Jersey Department of Environmental Protection ("NJDEP"), EPA collected six surface soil, four sediment, and four surface water samples from the facility property during a Site Inspection Prioritization ("SIP") sampling event. Results of the sampling are summarized in the SIP Evaluation Report, dated January 23, 1995. VOCs, semi-volatile organic compounds ("SVOCs"), Aroclor-1254, and various metals were detected in soils at concentrations significantly exceeding background levels. Aroclor-1254, TCE, 1,2-dichloroethene (1,2-DCE), and lead were detected in a sediment sample from Bound Brook near the rear of the property. In addition, elevated concentrations of polycyclic aromatic hydrocarbons ("PAHs"), Aroclor-1254, lead and zinc were present in the sediment collected near the outfall pipe. Aroclor-1254, Aroclor-1248, 1,2-DCE, and various metals were also detected at elevated concentrations in surface water samples from Bound Brook.

In June 1996, NJDEP requested RAB to collect and analyze additional soil, surface water and sediments at the facility. The results of the sample analyses revealed that elevated levels of PCBs, VOCs, and inorganics were present at the Site. Contaminants identified in the 1996 EPA sediment sampling in the Bound Brook Corridor adjacent to the Site included cadmium, copper, lead, PAHs, and PCBs.

On February 29, 1996, during a Hazard Ranking System ("HRS") sampling event EPA collected four surface soil samples (and a duplicate sample) and four sediment samples from the facility property and Bound Brook, respectively. Aroclor-1254 was detected at concentrations up to 77 milligrams/kilogram ("mg/kg") in the soils and up to 520 mg/kg in the sediments, as described in the Hazard Ranking System Documentation Report, dated December 1996.

On June 11, 1996, EPA completed a Screening Level Ecological Risk Assessment (EPA, 1996b), which included a comparison of surface water and sediment contaminant levels to available screening values. The risk assessment indicated that contamination apparently related to the Site

was present in sediments in the Bound Brook at levels that have been linked to adverse impacts in benthic organisms in other freshwater systems.

On June 16 through 20 and 27, 1997, EPA initiated a study to determine the impacts of contamination of the Bound Brook Corridor on human health and the environment. Soil, sediment, water, and biota (fish, crayfish, and small mammals) samples were collected along Bound Brook adjacent to and downgradient of the former CDE facility. Samples of edible fish were collected from Bound Brook, New Market Pond, and Spring Lake for use in assessing human health risks. Results of the sampling are presented in the *Bound Brook Sampling and Edible Fish Tissue Data Report*, dated August 1997 (EPA, 1997a).

On August 7, 1997 EPA collected additional soil, sediment, surface water, and biota samples along the Bound Brook Corridor adjacent to and downstream of the former CDE facility. Aroclor-1254 concentrations as high as 13 mg/kg (wet weight) and 6.2 mg/kg (wet weight) were measured in the sediment and floodplain soils, respectively. Copper, zinc, lead, and barium were detected in the soils and sediments, at concentrations up to 210 mg/kg, 620 mg/kg, 540 mg/kg, and 380 mg/kg (dry weight), respectively. Fish fillet samples detected two PCBs and seven pesticides. Data collected during this sampling event, in conjunction with the June 1997 concentrations, were utilized to conduct an ecological risk assessment.

Table 1: Maximum PCB Concentrations (mg/kg) Detected in Samples Collected From the Bound Brook, EPA, 1997

	North Bank	South Bank	Sediment
Reach 1	6.7	85	0.32
Reach 2	8.1	27	22
Reach 3	39	830	21
Reach 4	4.6	250	1.6
Reach 5	180	110	39
Reach 6	470	220	13.6
Reach 7	28	24	25
Reach 8	15	7.1	22
Reach 9	0.2	0.17	0.12

From August 1997 through December 1997, EPA conducted sampling along the Bound Brook floodplain, collecting surface and subsurface soils from the banks and sediments from the streambed. As described in the *Soil and Sediment Sampling and Analysis Summary Report,* dated September 8, 1998, one hundred transects were established along approximately 2.4 miles of the Bound Brook, with transects located upstream, midstream, and downstream of the Site. Four of the transects were located downstream of the New Market Pond spillway. Mean total PCB concentrations were 7.59 mg/kg for the surface soils; 11.97 mg/kg for the subsurface soils; 2.93 mg/kg for the surface sediments; and 2.34 mg/kg for the subsurface sediments.

In October and November 1997, EPA collected soil and indoor dust samples from residential properties on Spicer Avenue, near the former CDE facility property. EPA and the Agency for Toxic Substances and Disease Registry ("ATSDR") reviewed the data obtained from this sampling and concluded that exposure to PCBs in dust and soil posed a potential health concern for residents at several of the properties tested. To limit the potential for exposure to PCBs until a final remedy could be selected, EPA initiated removal activities to clean the interiors of seven homes on Spicer Avenue, Garibaldi Avenue, and Hamilton Boulevard. EPA performed interior cleaning on seven properties, and entered into an Administrative Order on Consent ("AOC") with DSC and CDE for removal of contaminated soil from six properties.

In 1997 the Environmental Response Team ("ERT") performed an ecological evaluation of the Bound Brook. These investigations identified elevated levels of PCBs in fish and sediments of the Bound Brook. Maximum PCB concentrations (Aroclor-1254) identified in crayfish, forage fish, and edible fish was 2.4 mg/kg, 20 mg/kg, and 42 mg/kg, respectively. As a result of these investigations, NJDEP issued a formal fish consumption advisory for the Bound Brook and its tributaries, including nearby New Market Pond and Spring Lake.

On September 23, 1998, EPA issued an Action Memorandum documenting verbal authorization given in August 1997 and March 1998 to conduct removal activities at the Site, and approving additional activities, a ceiling increase and a 12-month exemption for the removal action.

From June 21 through 23, 1999, additional samples from the Bound Brook Corridor, downstream of Spring Lake, were collected by EPA and analyzed for PCBs. Four areas were sampled: Area 1 (Veteran's Memorial Park), Area 2 (north side of Cedar Brook, between Lowden and Oakmoor Avenues), Area 3 (north side of Bound Brook, in the vicinity of Fred Allen Drive), and Area 4 (located adjacent to stream 14-14-2-3 as identified on the Flood Insurance Map for the Township of Piscataway, south of New Market Avenue and east of Highland Avenue). The investigation results are presented in the *Floodplain Soil/Sediment Sampling and Analysis Summary Report*, dated January 2000. Area 1 samples had total PCB concentrations ranging from non-detect to 25 mg/kg; Area 2 samples had total PCB concentrations ranging from 0.060 mg/kg to 2.0 mg/kg; Area 3 samples had total PCB concentrations ranging from 2.5 mg/kg to 7.5 mg/kg; and Area 4 samples had total PCB concentrations ranging from non-detect to 0.21 mg/kg.

In 2000, EPA initiated the Remedial Investigation/Feasibility Study ("RI/FS") for the Site and began collecting soil samples from properties further away from the former CDE facility. This sampling revealed additional properties with PCBs in soil at unacceptable levels, and indicated a need for more extensive sampling. EPA compiled the 1997 and 1998 removal sampling data with its remedial investigation data in an RI/FS Report and issued a Proposed Plan for the contaminated residential, commercial and municipal properties in the vicinity of the former CDE facility, identified as OU1 of the CDE Site. In September 2003 EPA issued a ROD selecting a remedy for OU1.

In September 2004, EPA issued a ROD for OU2, selecting a remedy for the contaminated buildings, soil and capacitor disposal area at the former CDE facility. Since that time, EPA has begun work on the RI/FS for OU3 and OU4.

Following the observance of capacitors in the Bound Brook in May 2007, EPA performed monitoring of the Bound Brook in the vicinity of the facility on a weekly basis to determine the extent to which the PCB-contaminated capacitors are present in the Bound Brook and what impact they are having on the Bound Brook Corridor. Periodic inspections of the Bound Brook identified an occasional capacitor. Capacitor and capacitor parts discovered during these inspections have been collected and secured in drums at the Site for future disposal. These capacitors, most of which are relatively small in size, typically have extremely high concentrations of PCBs. The laboratory analysis of oil contained inside a capacitor located on-site indicated percent levels of PCBs. These capacitors are believed to have been displaced due to erosion in the area of the three culverts that support the railroad siding that had provided rail access to the CDE facility.

In December 2007 through January 2008, RAB re-created a portion of the sampling event that was conducted in the Bound Brook corridor in 1997. During this effort, Reaches 1 through 4 were sampled; an approximate area that spans from the upstream wetland bounded by Spicer Avenue to Lakeview Avenue. The analytical results indicated that Reaches 2 and 3 contained elevated concentrations of PCBs. Reach 2 spans the area between the three culverts in the southeast corner of the Site to the first culvert under the Conrail tracks. Reach 3 covers the next downstream area up to the second culvert under the Conrail tracks. Results indicate that PCB concentrations have increased in some areas of the Bound Brook Corridor since 1997.

The maximum PCB concentrations, identified as Aroclor-1254, detected in Reach 2 were 180 mg/kg on both the north and south banks, and 190 mg/kg in the sediments. The areas of highest concentrations in Reach 2 were just downstream of the three culverts. The maximum PCB concentrations, identified as Aroclor-1254, detected in Reach 3 were 650 mg/kg in the north bank, 500 mg/kg in the south bank, and 62 mg/kg in the sediment. Most of the transects in Reach 3 contained sample locations with PCB detections above 100 mg/kg.

On May 14, 2008, NJRB, RAB and personnel from the Removal Support Team ("RST") contractor directed the excavation of several test pits along the perimeter of the Site to observe subsurface conditions in the banks of the Brook. The test pit activities identified capacitors in soils near the culverts of the Brook (Test Pit #2) in the southeastern portion of the former CDE facility. Plastic film used in mica capacitors was observed in soils obtained from Test Pits #6 and #7 located in the southern portion of the former CDE facility near the wetlands area. A copy of the Trip Report for the event is included as Appendix 3.

On July 8, 2008, a visual inspection of Reach 1 of the Bound Brook and the Wetlands Area was performed by RAB and RST. During the inspection, capacitors, capacitor debris, and stained wooden blocks were identified, documented, photo-documented, collected, staged on-site, and GPS coordinates of the location where each item was collected were recorded. Capacitor parts were located in Reach 1 in the area of the culverts beneath the railroad siding and in the south

and southeast banks bordering the wetlands area. A capacitor was collected from approximately 60 feet upstream of the culverts along the southern portion of the former CDE facility. A copy of the report and a map depicting the locations where the capacitor and capacitor debris were located is included as Appendix 4.

Review of a historical aerial photo dated October 20, 1947, indicates the area of the three culverts included fill material from the CDE facility. The backfill used during the construction of these additional culverts appears to have been obtained from the land filling activities that occurred during CDE operations and as such it contained capacitors, capacitor parts, and PCB-contaminated wood blocks. In addition, a comparison of an aerial photo taken on May 7, 1963 (photo collected during construction of two additional culverts installed adjacent to the one pre-existing culvert) and an aerial photo taken on March 9, 1991 indicated significant erosion of the soil between the pre-existing single culvert and two culverts installed in 1963 had occurred.

EPA's observations of capacitors on and in the banks of the Bound Brook, review of results from recent sediment analytical data, and evaluation of historical aerial photos support the conclusion that a CERCLA removal action is warranted at the Site to address the potential threats posed by the continued presence and release of capacitors and associated parts, and contaminated wood blocks containing elevated concentrations of PCBs, from the banks of the Brook in the vicinity of the culverts and upstream wetlands.

2. Physical location

The former CDE facility is located at 333 Hamilton Boulevard in South Plainfield, Middlesex County, New Jersey. It occupies approximately 26 acres in an area of mixed industrial, commercial and residential uses, and is bordered by commercial businesses and residences to the south, west, and northwest. Wetlands and an unnamed tributary to the Bound Brook border the former CDE facility to the southeast and east. Conrail railroad tracks pass alongside the eastern edge of the Site and crisscross the unnamed tributary just north of the former CDE facility. Other industries and commercial businesses are present to the northeast and east of the former CDE facility on the opposite side of the Conrail tracks. An estimated 540 persons reside within 0.25 miles of the former CDE facility, with the nearest residential homes being located on Spicer Avenue and on the opposite side of Hamilton Boulevard, less than 200 feet from the former CDE facility. The total population estimated to live within one mile of the Site is 8,700 persons. A site map is included as Appendix 1.

The unnamed tributary flows into the Bound Brook approximately 0.75 miles downstream of the former CDE facility. The Bound Brook flows for 1.5 miles before emptying into New Market Pond. Surface water flow from New Market Pond travels approximately 8.5 miles before discharging into the Raritan River. The dam on the western edge of New Market Pond is reportedly impassible to most fish. Spring Lake is located upstream from the Site and is associated with Cedar Brook. Both of these water bodies support secondary contact recreation including boating and fishing. All of the above-mentioned water bodies are designated by the State of New Jersey for the maintenance, migration, and propagation of the natural and established biota. These water bodies are utilized as freshwater fisheries. A fish consumption

advisory has been posted for the area between the former CDE facility and New Market Pond. Wetlands that border the former CDE facility to the southeast diminish significantly as the Bound Brook heads downstream towards the northwest. The width of the stream in the vicinity of the former CDE facility varies from ten to 20 feet, with a varying depth during normal conditions, of one to four feet. Ground water is a significant source of drinking water within a four-mile radius of the Site. The majority of people within this radius are served by drinking water from either the Middlesex Water Company or the Elizabethtown Water Company, both of which utilize supply wells within four miles of the Site.

3. Site characteristics

This proposed removal action is the third EPA fund lead removal action at the Site. Potentially responsible parties ("PRPs") have also undertaken removal activities at the Site.

As described above, historic industrial operations at the former CDE facility have led to widespread contamination. PCBs have been detected in the groundwater, soils and in former building interiors at the industrial park, at adjacent residential, commercial, and municipal properties, and in the surface water and sediments of the Bound Brook Corridor high levels of VOCs have been found in the facility soils and in groundwater.

In May 2008, as part of the OU2 remedial action for the Site, EPA completed the demolition of the 18 contaminated buildings at the former CDE facility. The buildings were contaminated with PCBs and metals, such as arsenic, chromium, mercury, and lead. Approximately 26,400 tons of building debris was transported off-site to CERCLA approved landfills.

4. Release or threatened release into the environment of a hazardous substance, or pollutant, or contaminant

The following hazardous materials and/or substances have been identified at the Site:

Substances Identified	Statutory Source for Designation as a Hazardous Substance[1]
polychlorinated biphenyls (PCBs)	CWA 311(b) (4), & CWA 307(a)
Furan	RCRA 3001
2,3,7,8-TCDD (dioxin)	CWA 307(a)
3,3',4,4'-tetrachlorobiphenyl (dioxin congener)	

PCBs are the most prevalent contaminants found at the Site. PCBs were initially released and disposed of as a result of manufacturing activities at the former CDE facility, and have migrated and been spread further since CDE ceased operations. Surface and subsurface soil sample analytical results indicated the presence of PCB compounds in almost all of the samples

[1] CWA 311(b) refers to Section 311(b) of the Clean Water Act; CWA 307(a) refers to Section 307(a) of the Clean Water Act, and RCRA 3001 refers to Section 2001 of the Resource Conservation and Recovery Act.

collected. Four individual Aroclors (-1242, -1248, -1254, and -1260) were detected at the former CDE facility.

PCBs are a group of 209 different chemicals which share a common structure but vary in the number of attached chlorine atoms. The International Agency for Research on Cancer and EPA classify PCBs as a probable human carcinogen. The National Toxicology Program has concluded that PCBs are reasonably likely to cause cancer in humans. The National Institute for Occupational Safety and Health has determined that PCBs are a potential occupational carcinogen. Studies of PCBs in humans have found increased rates of melanomas, liver cancer, gall bladder cancer, biliary tract cancer, gastrointestinal tract cancer, and brain cancer, and have found that PCBs may be linked to breast cancer. PCBs are known to cause a variety of types of cancer in rats, mice, and other study animals.

Once PCBs enter a person's (or animal's) body, they tend to be absorbed into fat tissue and remain there. Unlike water-soluble chemicals, they are not excreted, so the body accumulates PCBs over years. This means that PCBs also accumulate via the food chain: a small fish may absorb PCBs in water or by eating plankton, and these PCBs are stored in its body fat. When a larger fish eats the small fish, it also eats and absorbs all the PCBs that have built up in the small fish. In this way, larger fish and animals can build up a highly concentrated store of PCBs. Some types of PCBs may degrade into nontoxic form while they are stored in the body, but this process can take many years.

People exposed directly to high levels of PCBs, either via the skin, by consumption, or in the air, have experienced irritation of the nose and lungs, skin irritations such as severe acne (chloracne) and rashes, and eye problems. Women exposed to PCBs before or during pregnancy can give birth to children with significant neurological and motor control problems, including lowered IQ and poor short-term memory.

PCBs with only a few chlorine atoms can mimic the body's natural hormones, especially estrogen. Women who consumed PCB-contaminated fish from Lake Ontario were found to have shortened menstrual cycles. PCBs are also thought to play a role in reduced sperm counts, altered sex organs, premature puberty, and changed sex ratios of children. More highly-chlorinated PCBs (with more chlorine atoms) act like dioxins in altering the metabolism of sex steroids in the body, changing the normal levels of estrogens and testosterone. PCBs tend to change in the body and in the environment from more highly-chlorinated to lower-chlorinated forms, increasing their estrogenic effects.

Because of the high concentrations of PCBs present in the soils in the southeastern portion of the former CDE facility, a limited number of surface and subsurface soil samples underwent PCB congener analysis. There are 209 congeners of PCBs. Individual congeners can have a toxicity similar to dioxin and, if present in sufficient concentrations, can pose a risk higher than the PCB congeners that lack the chemical properties of dioxin. This analysis revealed 3,3',4,4'-tetrachlorobiphenyl, a dioxin-like congener, at a maximum concentration of 2,200 parts per million ("ppm").

As reported in the September 2004 EPA ROD for OU2, test pit excavations unearthed capacitors that appeared corroded and/or partially burned. In addition, during excavation of test pits, white and blue crystalline powder, electrical components, and other materials were unearthed.

Due to the presence of charred debris in the test pits and the fact that burning PCBs can result in the generation of dioxins and dibenzofurans, a highly toxic group of contaminants, a limited set of soil samples were subjected to dioxin and furan analysis. Although analyzed in only a few surface and subsurface soil samples during the OU2 RI/FS, dioxins and furans were detected.

Individual dioxin/furan constituents ranged up to 13.5 parts per billion ("ppb"). The maximum concentration for the dioxin/furan homologs (i.e., compounds with an equal number of chlorine substitutions) was 52.8 ppb. These hazardous substances are acutely and chronically toxic, and carcinogenic. The potential health effects from some of these compounds are skin disorders such as chloracne; liver problems; impairment of the immune system, endocrine system, and reproductive functions; effects on the developing nervous system and other developmental events; and development of certain types of cancers.

The mechanisms by which these hazardous substances could be released include potential airborne release and potential migration of contamination in the surface water and groundwater. Numerous events could trigger releases. The primary concerns include destabilization of the banks of the Bound Brook, bank erosion, migration of soils, migration of debris (such as PCB-contaminated wood blocks and PCB-contaminated paper film used in capacitors) as a result of flooding in the wetlands area, and seepage of PCB-contaminated perched groundwater from the overburden into the Bound Brook.

5. National Priorities List ("NPL") status

The Site was listed on the NPL in July 1998.

6. Maps, pictures, and other graphic representations

Appendix 1, includes a figure showing the general location and layout of the Site.

B. <u>Other Actions to Date</u>

1. Previous actions

On August 5, 1997 the EPA Emergency and Remedial Response Division ("ERRD") Director granted verbal authorization of $10,000 for the fabrication and installation of signs warning anglers not to eat fish taken from waters of the Bound Brook.

On March 26, 1998, the ERRD Director granted verbal authorization of $150,000 for the removal and disposal of PCB-contaminated dust from the interiors of seven homes located near the Site.

On September 23, 1998 the ERRD Director approved an Action Memorandum that documented the verbal authorizations of August 5, 1997 and March 26, 1998, approved a ceiling increase of $265,000 for performance of additional removal activities, increasing the ceiling to a total of $425,000, and approved an exemption from the 12-month statutory limitation for performance of removal activities. The additional removal activities included the removal and disposal of PCB-contaminated dust from the interiors of eight additional homes located near the former CDE facility.

On or about March 25, 1997 EPA issued a Unilateral Administrative Order ("UAO") (Index No. II-CERCLA-97-0109) to DSC, the current owner of the Hamilton Industrial Park, which required that removal activities be performed to stabilize and restrict access to certain areas of the Site. The scope of work included paving facility driveways, parking areas and walkways, installing security fencing and warning signs to limit access to the property, and installing silt fencing to limit off-site migration of surface soils.

On August 6, 1998, CDE and DSC entered into AOC (Index No. II-CERCLA-98-0115) for removal activities that included the removal and disposal of contaminated soil from five residential properties, and delineation of the vertical and horizontal extent of PCB contamination in soil above 1 mg/kg at one additional property. The work was completed by CDE and DSC on September 16, 1999.

On August 8, 1998, NJDEP issued a final fish consumption advisory. The advisory included all parts of the Bound Brook and its tributaries, New Market Pond and Spring Lake.

Because of contamination found on residential properties, EPA expanded its investigation near the former CDE facility. Again, EPA determined that PCBs found in dust and soil posed a potential health concern for residents. EPA cleaned the interiors of eight homes on Delmore Avenue and Hamilton Boulevard. On February 23, 1999, EPA entered into an AOC (Index No. II-CERCLA-99-2006) with CDE and Dana, former owners and operators of the Site, for removal of contaminated soil from seven additional residential properties.

On April 28, 1999, EPA issued UAO (Index No. II-CERCLA-99-2012) to DSC and Federal Pacific Electric Company ("FPE") requiring them to participate and cooperate in the removal activities that CDE and Dana were performing pursuant to AOC Index No. II-CERCLA-99-2006.

On August 15, 2001, an Action Memorandum requesting a removal re-start and exemption from the 12-month statutory limitation was approved. The removal activities involved the excavation and off-site disposal of contaminated soil from the residential property located at 126 Spicer Avenue and restoration of the property to pre-removal conditions.

On June 28, 2004, an Action Memorandum requesting a change in scope, ceiling increase and 12-month exemption was approved. The Action Memorandum authorized a somewhat greater scope and expense at 126 Spicer Avenue than provided for in the August 15, 2001 Action Memorandum.

In January 2008, as part of the RI/FS for OU3, addressing contaminated groundwater and associated soil vapor, NJRB installed 8 additional groundwater monitoring wells in the vicinity of the former CDE facility. Initial sampling revealed elevated levels of TCE in the groundwater.

In May 2008, NJRB completed the phase of the OU2 remedial action involving demolition of the 18 contaminated buildings at the former CDE facility.

In June 2008, NJRB completed another phase of the OU2 remedial action, excavating approximately 21,000 tons of PCB-contaminated capacitor debris and soils from an area in the undeveloped portion of the facility, identified as the main capacitor disposal area. The area formerly covered by the buildings has been temporarily paved with asphalt to minimize contact with and potential for release of contaminated soil. Excavation and backfilling of a portion of the former main capacitor disposal area was completed in June 2008. All of the waste was shipped off-site to a CERCLA approved disposal facility.

2. Current actions

Periodic inspections along the banks of the Bound Brook adjacent to the former CDE facility have identified an occasional capacitor. These capacitors are believed to have been displaced due to erosion. A review of historic aerial photos indicates there has been significant erosion of the banks of the Bound Brook directly downstream of the three culverts located at the southeast boundary of the former CDE facility. A review of historic aerial photos indicates that during CDE's operational history, two culverts were installed immediately west of the single existing culvert. The backfill used during the construction of these culverts appears to have been obtained from the disposal area used by CDE for the land filling of capacitors and associated parts.

On May 14, 2008, in an effort to inspect the subsurface condition along the banks of the Bound Brook and wetlands areas bordering the former CDE facility, eight test pits were excavated. Results of the test pit activities revealed capacitors at Test Pit 2 [near the three culverts]. Wood blocks were identified in Test Pits 2 [near the three culverts] and 7 (located adjacent to the wetlands area to the south of the former CDE facility). In addition, Test Pits 6 and 7 located adjacent to the wetlands area to the south of the former CDE facility contained plastic foil/film used in mica capacitors and capacitor parts. A copy of the Trip Report for the event is included as Appendix 3.

On July 8, 2008, a visual inspection of Reach 1 of the Bound Brook and the wetlands area was performed by EPA. During the inspection, capacitors, capacitor debris, and stained wooden blocks were identified, documented, photo-documented, collected, staged on-site, and GPS coordinates of the location where each item was collected were recorded. Capacitor parts were located in Reach 1 in the area of the culverts beneath the railroad siding and in the south and southeast banks bordering the wetlands area. A capacitor was collected from approximately 60 feet upstream of the culverts along the southern portion of the former CDE facility before the wetlands area. A copy of the report summarizing the inspection is included as Appendix 4.

During the next three to four months, EPA will re-evaluate the ecological risk assessment that was conducted in 1997-1998 for the Bound Brook Corridor adjacent to the former CDE facility. This assessment will focus on the collection of tissue samples from fin fish to determine the presence and concentration of PCBs.

NJRB is continuing work on the remedial design for the final phase of OU2, which will address the contaminated soils at the industrial park (the former CDE facility). Pursuant to the September 2004 ROD for OU2, soils with PCB concentrations above 500 ppm and contaminated soils that exceed New Jersey's Impact to Groundwater Soil Cleanup Criteria for contaminants other than PCBs will be excavated and treated on-site by low temperature thermal desorption ("LTTD"). Treated soil will be backfilled on-site, and soil that cannot be treated will be transported off-site for disposal. All soils remaining at the former CDE facility with PCB concentrations above 10 ppm will be capped. The remedial design for this phase of the cleanup is anticipated to be completed within the next several months.

Remedial investigative activities for OU4 are currently underway. An inter-agency agreement has been issued with the U.S. Army Corp of Engineers to perform the RI/FS for OU4. However, it is anticipated that the RI/FS will take approximately two years to complete. The selected remedy would be implemented sometime thereafter. The purpose of the removal activities authorized by this Action Memorandum will be to armor the stream banks and bank of the wetlands area in the southern portion of the former CDE facility to stabilize the Bound Brook and adjacent wetland area by containing capacitors, capacitor parts, and PCB-contaminated wood blocks, pending the selection and implementation of the remedy for this part of the Site. These removal activities are proposed as an interim measure.

C. State and Local Authorities' Roles

1. State and local actions to date

On September 11, 1986, NJDEP conducted a SI and collected three surface soil, two surface water, and two sediment samples at the facility property. Exact sample locations are not available. Several metals, VOCs, and Aroclor-1254 were detected in the soil and sediment samples. Information on the investigation event is presented in the SI Report, dated September 12, 1986, and the Data Validation Review Memorandum, dated April 13, 1987.

On July 7, 1994, NJDEP entered into a Memorandum of Agreement with DSC to conduct remedial activities associated with a fuel oil release by Norpak Corporation. NJDEP referred the Site to EPA for CERCLA removal action on April 3, 1997.

There has been no State or local removal actions taken at the Site. The New Jersey Department of Health and Human Services ("NJDHSS") is providing health consultations to the EPA through the ATSDR. Based on the results of EPA's sampling, the NJDEP issued a fish consumption advisory for the Bound Brook and its tributaries including New Market Pond and Spring Lake.

2. Potential for continued State/local response

The NJDHSS will continue to provide technical assistance to the EPA concerning health issues at the Site. The NJDEP will maintain the fish advisory.

III. THREATS TO PUBLIC HEALTH, OR WELFARE, OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Hazardous substances, pollutants, or contaminants present at the Site represent a threat to the public health and welfare as defined by Section 300.415(b)(2) of the NCP, in that there is a high potential for releases to continue to occur due to erosion of the unnamed tributary in the area of the culverts. Factors that support conducting a removal action at the Site are discussed below.

A. Threats to Public Health or Welfare

Conditions at the Site meet the requirements of Section 300.415(b) of the NCP for the undertaking of a CERCLA removal action. Factors from the NCP Section 300.415(b) (2) that support conducting a removal action at the Site are:

(i) Actual or potential exposure to nearby human populations or the food chain from hazardous substances, or pollutants, or contaminants [300.415(b) (2) (i)];

CERCLA hazardous substances have been identified in the soils and sediments in the Bound Brook Corridor near the former CDE facility. There is evidence that persons are accessing this area. While someone entering the area could potentially be exposed to elevated levels of PCBs and other CERCLA hazardous substances associated with the Site, the frequency and duration of this exposure is not known. Potential exposure pathways include incidental soil ingestion, dust inhalation, and dermal contact.

Based on the results of the ecological evaluation conducted in 1998, PCBs have been detected in the fish along the Bound Brook Corridor from the former CDE facility downstream to New Market Pond. Although a fish consumption advisory has been issued and warning signs are posted along the Bound Brook, it is reported that subsistence fishing for consumption does occur in these areas. Consumption of fish that contain PCBs at the levels previously identified in 1998 poses a potential human health threat.

In June 2000, oil contained inside a capacitor located on-site was sampled and the results indicated the oil had percent levels of PCBs. In October 2007, analysis of a sample collected of a wood block from inside one of the former facility buildings detected PCBs at 1,650 ppm. This wood block was similar to the wood blocks found in the banks of the Bound Brook and wetlands. Periods of high water levels in the Bound Brook provide opportunity for erosion of the banks and migration of the PCB-contaminated materials since capacitor parts (foil) and wood blocks will float.

PCBs are readily absorbed into the body by all routes of exposure. They may persist in tissues for years after exposure stops. Long-term exposure to PCBs can affect the skin and liver. PCBs may impair the function of the immune system and at high levels have been shown to produce cancer and birth defects in laboratory animals. Although PCBs are suspected as a human carcinogen, they have a very low potential for producing acute toxic effects. PCBs bioaccumulate to concentrations that are toxic. A number of human studies indicate that PCBs can cross the placenta and locate in the fetus. PCBs also concentrate in human breast milk.

(iv) High levels of hazardous substances, or pollutants, or contaminants in soils largely at or near the surface, that may migrate [40 CFR §300.415(b) (2) (iv)];

PCB capacitors, capacitor parts, and PCB-contaminated wood blocks are at the surface of the banks of the Bound Brook and the wetlands area. This debris may migrate. Elevated levels of PCBs have been identified in the Bound Brook Corridor, in particular Reaches 2 and 3. Soils contaminated from deteriorated capacitors adjacent to the former CDE facility are readily available to migrate. During significant rain events, elevated flow rates and flash floods could cause the PCB contamination to be spread downstream and into the floodplain.

(v) Weather conditions that may cause hazardous substances, or pollutants, or contaminants to migrate or be released [300.415(b)(2)(v)]; and

Since storm water runoff is a major source of flow in the Bound Brook Corridor, heavy or sustained rainfall events result in considerable water movement through the area. This facilitates the transport of PCB-contaminated soil and/or capacitors. Capacitors that are present at the surface on the southern end of the former CDE facility, upstream of the culverts, and in the banks of the Bound Brook downstream of the three culverts could be unearthed and migrate downstream. This disturbance and movement could agitate the capacitors present near the surface and result in a release of PCBs directly into the Bound Brook or the adjacent floodplain.

(vii) The availability of other appropriate federal or State response mechanisms to respond to the release [300.415(b)(2)(vii)].

EPA is the only government agency capable of taking timely and appropriate action to respond to the threat posed by the presence of hazardous substances at the Site.

B. Threats to the Environment

The Bound Brook is a low-gradient stream that has been documented through fishery surveys to contain spottail shiner, silvery minnow, white sucker, tessellated darter, American eel, largemouth bass, redfin pickerel, rock bass, catfish, carp, and sunfish. Mammalian species reportedly observed in the Bound Brook Corridor include red fox, domestic dog, muskrat, groundhog, white-tail deer, eastern gray squirrel, eastern cottontail, white-footed mice, eastern chipmunk, rat, raccoon, and opossum. Although not documented to be present near the Site, piscivorous mammals such as mink and river otter may occur within the Bound Brook Corridor. Avian species reportedly identified within the Bound Brook Corridor include red-tailed hawk,

belted kingfisher, great blue heron, green heron, Canada goose, song sparrow, American goldfinch, domestic pigeon, barn swallow, hairy woodpecker, yellow warbler, common yellowthroat, northern oriole, killdeer, house wren, American robin, and great-crested flycatcher.

PCBs are readily absorbed by animals through numerous routes of exposure. PCBs may persist in animal tissues for years after exposure stops. Rats that ate food containing large amounts of PCBs for a short period had mild liver damage, and some died. Animals that ate smaller amounts of PCBs in their food over several weeks or months had many serious health effects including liver, stomach and thyroid gland injuries; anemia; acne; and damaged reproduction. These effects have been seen in many different kinds of animals, including monkeys, as well as in the offspring of animals that ate PCBs. PCBs may impair the function of the immune system and at high levels have been shown to produce cancer and birth defects in animals. PCBs bioaccumulate to concentrations that are toxic.

In addition to the factors from NCP Section 300.415(b)(2) that support conducting a removal action at the Site that are discussed above, the following factors are present at the Site:

(i) Actual or potential exposure to nearby human populations or the food chain from hazardous substances, or pollutants, or contaminants [300.415(b)(2)(i)];

As stated above, CERCLA hazardous substances have been identified in the soils and sediments in the Bound Brook Corridor. There is evidence that animals are accessing this area near the former CDE facility. Potential exposure pathways include incidental soil ingestion, contaminated water ingestion, dust inhalation, and physical contact with the contaminated capacitor debris and wood blocks. Based on the results of the ecological evaluations conducted in 1998 and 2007, PCBs have been detected in the fish along the Bound Brook Corridor from the former CDE facility downstream to New Market Pond.

Periods of high water levels and swift moving currents of the Bound Brook following periods of heavy rains continue to cause significant erosion of its banks steadily unearthing additional PCB-contaminated material and creating greater exposure to the environment. This exposure of the PCB-contaminated debris provides greater opportunity for direct contact with PCBs of animals living along the Bound Brook and wetlands area of the Site. This erosion also creates the opportunity for migration of PCB-contaminated floatables such as the foil from the capacitors, and the wood blocks that were once used as flooring in the CDE production buildings, thereby creating greater opportunity for exposure to flora and fauna.

Additional PCB exposure other than of the flora and fauna living in close proximity to the PCB contaminated-debris can be caused by species that migrate. Many species are not exclusive to near shore and estuarine environments but migrate between the open ocean, the near shore, and sheltered estuaries. These migratory species therefore act as "integrators" of exposure, integrating contaminant exposure over space and time. This food chain effect is the way by which species that may never enter or reside in estuaries are exposed to hotspots indirectly, but significantly through the food chain.

(v) Weather conditions that may cause hazardous substances, or pollutants, or contaminants to migrate or be released [300.415(b)(2)(v)]; and

As stated above, disturbance and movement of PCB-contaminated soil and capacitors could result in a release of PCBs directly into the Bound Brook or the adjacent floodplain. Species that feed in sediments can accumulate contamination by ingestion of the contaminated prey living in the sediments and by ingestion of contaminated sediments while feeding. Thus, marine life that relies on the sediment habitat and their predators are at high and direct risk to effects from contaminated sediments.

(vii) The availability of other appropriate federal or State response mechanisms to respond to the release [300.415(b)(2)(vii)].

As stated above, EPA is the only government agency capable of taking timely and appropriate action to respond to the threat posed by the presence of hazardous substances at the Site.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances at and from the Site, if not addressed by the response action selected in this Action Memorandum, would present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. EXEMPTION FROM STATUTORY LIMITS

Section 104(c) of CERCLA limits removal actions to twelve months unless certain criteria are met. At the Site, an exemption is justified because there is an immediate risk to public health or welfare or the environment, continued response actions are immediately required to prevent, limit or mitigate an emergency, and such assistance will not otherwise be provided on a timely basis. As described above in Section III, human populations, flora and fauna are exposed to PCBs as a result of conditions in the Bound Brook Corridor. The response measure proposed in this Action Memorandum will address the immediate threat posed by these conditions. Neither the State nor local government agencies have the resources to complete the removal action and mitigate the threat to public health and the environment in a timely manner.

VI. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

Since 2007 periodic inspections have been conducted along the Bound Brook near the former CDE facility. Capacitors, capacitor parts, and PCB-contaminated wood blocks discovered during these inspections have been collected and secured in drums at the Site for future disposal.

The removal action proposed in this Action Memorandum is an interim action that will armor the banks of the Bound Brook in the area of the three culverts and along the wetlands that border the historical CDE disposal area. The objective is to eliminate direct contact with PCB-contaminated debris and prevent its migration from the banks along the perimeter of the former CDE facility property. The following actions are proposed to stabilize the banks to prevent the release of PCB-contaminated debris due to erosion:

- Vegetation will be cleared from the banks of the Bound Brook in the area of the three culverts and on the southern bank of the facility property along the edge of the wetlands area. Approximately 15,000 to 20,000 ft^2 of area will be cleared of vegetation.

- Geotextile fabric will be installed over the soil in the cleared area to prevent erosion. The barrier will be installed on the banks of the Bound Brook in Reach 1, from near the railway siding and three culverts to approximately 140 feet downstream of the culverts in the tongue area and north bank and for approximately 500 feet upstream of the culverts along the southern bank of the former CDE facility property that borders the wetlands area.

- Rip-rap will be installed over the geotextile fabric to armor the banks of the Bound Brook and to secure the geotextile fabric.

- A dust monitoring/control program will be initiated during all site activities. All cleared vegetation will be chipped on-site and spread on the temporary roadways.

2. Contribution to remedial performance

The response measures proposed in this Action Memorandum will address the immediate threat of direct contact with hazardous substances by the public. Consistent with Section 104(a)(2) of CERCLA, the proposed activities will contribute to the efficient performance of any long-term remedial action selected in the future by reducing the immediate threats to public health and the environment associated with the ongoing release or threatened release of hazardous substances at the Site.

3. Description of alternative technologies

Alternative technologies were considered in terms of whether the technology provides timely response and protection of human health and the environment. The planned removal action is appropriate based upon the criteria of effectiveness, implementability, and cost.

4. EE/CA

Due to the time-critical nature of this removal action, an EE/CA will not be prepared.

5. Applicable or relevant and appropriate requirements (ARARs)

ARARs that are within the scope of this removal action will be met to the extent practicable, considering the exigencies.

6. Project schedule

The removal action proposed in the Action Memorandum will take approximately two months to complete.

Estimated Costs

The estimated costs for the removal activities at the Site are summarized below. A breakdown of Regional Removal Allowance costs is included as Attachment A.

Direct Extramural Costs	Current Ceiling	Additional Funding Requested	Current Proposed Ceiling
Regional removal allowance costs	$394,622	$355,000	$749,622
20% Contingency	---	$71,000	$71,000
Total Regional removal allowance costs	$394,622	$426,000	$820,622
Other Extramural Costs Not Funded from the Regional Allowance	---	---	---
Total RST Costs	$35,481	$42,500	$77,981
Subtotal, Extramural Costs	$430,103	$468,500	$898,603
20% Extramural Cost Contingency	$29,997	$93,700	$123,697
TOTAL DIRECT EXTRAMURAL COSTS	$460,100	$562,200	$1,022,300

VII. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Should no action be taken or the proposed action be delayed, individuals and animals would be at risk of exposure to capacitors\capacitor parts and wood blocks that contain high levels of PCBs. Erosion of the banks of the Bound Brook will continue to expose capacitors and wood blocks containing high levels of PCBs.

VIII. OUTSTANDING POLICY ISSUES

No known outstanding policy issues are associated with this removal action.

IX. ENFORCEMENT

A. Enforcement History

To date, EPA has identified and sent notices of liability to the following PRPs: 1) DSC (current owner of the former manufacturing facility located at 333 Hamilton Boulevard, South Plainfield, which is being addressed as OU2 of the Site); 2) Norpak Corporation ("Norpak") (a sister corporation of DSC, which has acted as an operator of the Site); 3) CDE (former owner and operator of the Site, which manufactured capacitors at the facility property from 1936 to 1962, first as a tenant and later as an owner of the property); 4) Dana (former owner and operator of the Site, which owned the OU2 property from 1912 to 1956 and leased it to CDE from 1936 to 1956); 5) Dana Corporation Foundation (a sister corporation to Dana, which owned the OU2 property for a brief period in 1956); 6) FPE (former parent corporation of CDE, which from 1960 to 1962 may have acted as an operator of the Site); 7) the U.S. Department of the Army; 8) the U.S. Department of the Navy; 9) the U.S. General Services Administration; and 10) the U.S. Department of Commerce (the four federal PRPs acted as operators of the Site during World War II, when the South Plainfield facility was an important supplier of capacitors to the United States).

As discussed above in Section II.B.1, since 1997, EPA has issued four UAOs and entered into four AOCs with one or more PRPs for the performance of response activities at the Site. EPA has also settled with one PRP for its violation of one of the AOCs, and has entered into a stipulation of settlement in the bankruptcy of another PRP.

On or about March 25, 1997, EPA issued a UAO (Index No. II-CERCLA-97-0109) to DSC, the current owner of the former CDE manufacturing facility, which at the time DSC was operating as the Hamilton Industrial Park. This UAO required that removal activities be performed to stabilize and secure certain areas of the Site. The scope of work included paving facility driveways, parking areas and walkways, installing security fencing and warning signs to limit access to the property, and installing silt fencing to limit off-site migration of surface soils. DSC complied with the UAO.

In July 1998, EPA offered the PRPs an opportunity to perform an RI/FS, to help determine the nature and extent of contamination at the Site. After EPA and the PRPs were unable to agree on the scope of the RI required at the Site, EPA elected to perform the RI/FS using federal funds.

On August 6, 1998, CDE and DSC entered into an AOC (Index No.II-CERCLA-98-0115) for removal activities that included the removal and disposal of contaminated soil from five residential properties in the vicinity of the former CDE facility, and delineation of the vertical and horizontal extent of PCB contamination in soil above 1 mg/kg at one additional property.

On February 23, 1999, EPA entered into an AOC (Index No. II-CERCLA-99-2006) with CDE and Dana, for removal of contaminated soil from seven properties.

On April 28, 1999, EPA issued a UAO (Index No. CERCLA-02-99-2012) to DSC and FPE, requiring them to participate and cooperate in the removal activities that CDE and Dana were performing under the February 23, 1999 AOC.

In April 2000, EPA entered into an AOC (Index No. CERCLA-02-2000-2005) with DSC requiring the removal of PCB-contaminated soil from one additional property on Spicer Avenue. DSC agreed to perform the work required under the AOC, but subsequently failed to do so. EPA took over this removal work, and completed the removal of PCB-contaminated soil from this property in September 2004. In 2007, EPA entered into a settlement agreement with DSC under Section 122(h) of CERCLA, 42 U.S.C. § 9622(h), resolving DSC's liability for its failure to comply with the 2000 AOC by payment of the costs incurred by EPA to perform the required work, and a penalty payment.

On September 30, 2003, after EPA issued a ROD for OU1 at the Site, EPA and several of the PRPs entered into negotiations regarding the performance by the PRPs of the Remedial Design and Remedial Action ("RD/RA") for OU1, under EPA oversight. EPA and the PRPs were unable to reach an agreement, and on August 24, 2004, EPA issued a UAO (Index No. CERCLA-02-2000-2030) to DSC, CDE, and Dana, requiring them to perform the RD/RA for OU1. All three respondents informed EPA that they would not comply with the UAO.

On September, 2004, EPA issued a ROD for OU2, addressing the contaminated soil and buildings at the former CDE facility at 333 Hamilton Boulevard. EPA informed CDE, Dana and DSC (the PRPs that as of October 2004 had received notices of liability) of its decision not to use special notice procedures but invited them to contact EPA if they were interested in performing the RD/RA for OU2. The three PRPs declined to perform the OU2 RD/RA, and EPA undertook the RD for OU2. On June 26, 2006, EPA issued a UAO (Index No. CERCLA-02-2006-2015) to CDE, DSC and Norpak, requiring them to perform the building demolition portion of the OU2 RA. All three respondents informed EPA that they would not comply with the UAO.

In late 2004, Dana offered to undertake the RI/FS for OU3 of the Site, which addresses contaminated Site groundwater and associated soil vapor. On August 1, 2005, EPA and Dana entered into an AOC (Index No. CERCLA-02-2005-2024) requiring Dana to perform the RI/FS for OU3 under EPA's oversight. However, Dana filed for protection under Chapter 11 of the federal Bankruptcy Code on March 3, 2006. On May 1, 2006, Dana informed EPA it was ceasing work on the OU3 RI/FS, citing its bankruptcy proceeding.

In September 2006, EPA, through the United States Attorney's Office for the Southern District of New York, filed a proof of claim in the bankruptcy proceeding of Dana. Dana contested the claim and moved for an estimation proceeding. After a period of litigation, the United States and Dana entered into a stipulation of settlement. The settlement was lodged with the Federal

District Court for the Southern District of New York, and on September 12, 2008, it was approved by the Court. Pursuant to the settlement, the United States will receive a distribution of stock in the new Dana Holding Corp.

B. Enforcement Cost Estimate

Based upon full cost accounting practices, the total EPA cost for removal activities at the Site that will be eligible for cost-recovery are estimated to be $1,666,713, as follows:

C. EPA's Total Estimated Costs

Cost Type	Total Funding Requested in this Memorandum and Previous Memoranda
Direct Extramural Costs	**$1,022,300**
Direct Intramural Costs	**$250,000**
Subtotal, Direct Costs	**$1,272,300**
Indirect Costs (Total Direct Costs x Regional Indirect Cost Rate- 31%)	**$394,413**
Estimated EPA Costs Eligible for Cost Recovery	**$1,666,713**

Direct costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual costs from this estimate will affect the United States' right to cost recovery.

X. RECOMMENDATION

This decision document represents the selected removal action for the Cornell-Dubilier Electronics Site, in the Borough of South Plainfield, Middlesex County, New Jersey, developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based on the administrative record for the Site. Conditions at the Site meet the NCP Section 300.415 (b)(2) criteria for a removal action.

Project costs associated for the Site are not expected to exceed $2 million. This Action Memorandum requests the authorization of $562,200 in Direct Extramural funds, of which $426,000 is form the Regional Advice of Allowance for mitigation contracting, and a 12-month exemption. If approved, the Direct Extramural project ceiling for the Site (for this removal

action and earlier removal activities) would be increased to $1,022,300, of which $820,622 would be for mitigation contracting. Please confirm and indicate your approval and authorization of funding for the Cornell-Dubilier Electronics Site, as per current Delegation of Authority, by signing below.

Approved: Alan J. Steinberg **Date:** 9-24-08
Alan J. Steinberg
Regional Administrator

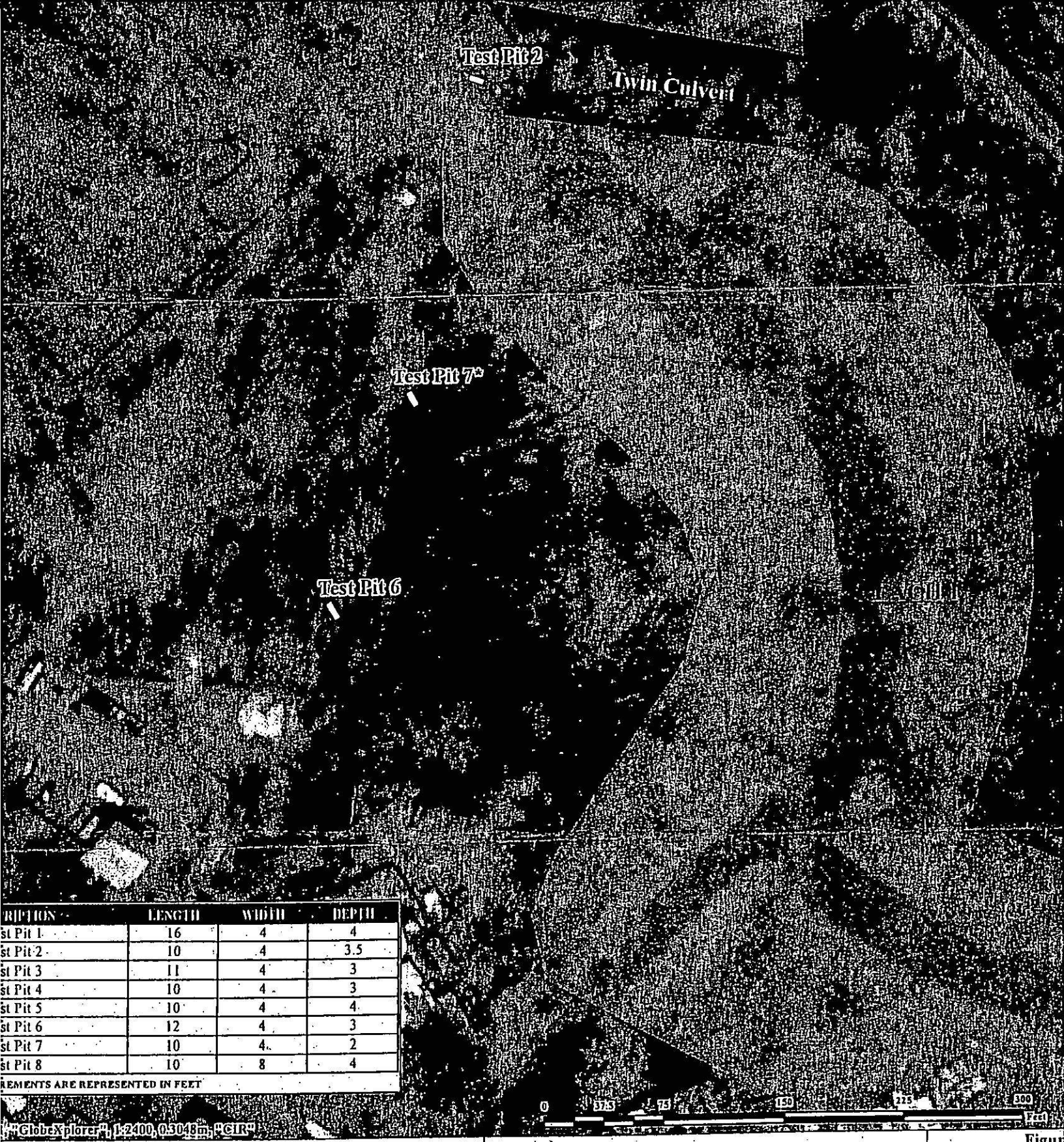
Disapproved: _____ **Date:** _____
Alan J. Steinberg
Regional Administrator

cc: (after approval is obtained)
G. Pavlou, ERRD-AD
J. LaPadula, ERRD-D
J. Rotola, ERRD-RAB
D. Harkay, ERRD-RAB
J. Kearns, ERRD-RAB
G. Zachos, ACSM/O
B. Grealish, ERRD-RAB
C. Petersen, ERRD-NJRB
R. Basso, ERRD-SIT
D. Karlen, ORC-NJSB
S. Flanagan, ORC-NJSB
D. Mellott, ORC-NJSB
P. Brandt, PAD
R. Manna, FMB
T. Grier, 5202G
J. Mater, NJDEP
L. Rosman, NOAA
A. Raddant, DOI
C. Kelley, RST

Appendix 1

Cornell-Dubilier Electronics, Inc.

Site Map



RIPTION	LENGTH	WIDTH	DEPTH
st Pit 1	16	4	4
st Pit 2	10	4	3.5
st Pit 3	11	4	3
st Pit 4	10	4	3
st Pit 5	10	4	4
st Pit 6	12	4	3
st Pit 7	10	4	2
st Pit 8	10	8	4

REMENTS ARE REPRESENTED IN FEET

"GlobeXplorer", 1:2400, 0.3048m, "CIR"

oratory Test Pits

ocation of Test Pit.

N E S W

Weston Solutions, Inc.

In Association With
Avatar Environmental, LLC,
Innovative Technical Solutions, Inc.
and Scientific and Environmental Associates, Inc.

Figur
Exploratory Test

CORNELL-DU
SOUTH PLAINFIEL

U.S. ENVIRONMENTAL P
REMOVAL SUPP
CONTRACT # E

DRAWN BY:	E. CAMPBEL
EPA OSC:	N. MAGRIPL
RST SPM:	T. ROWLAN
FILENAME:	CORNELL-D

DATE MODIFIED: 06/04/2008

Appendix 2

Cornell-Dubilier Electronics, Inc. Site

EPA-NJRB written request to EPA-RAB (dated August 20, 2007)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE: [illegible]

SUBJECT: Request for Removal Action Branch Assistance at the Cornell-Dubilier Electronics Site, South Plainfield, New Jersey.

FROM: Carole Petersen, Chief
New Jersey Remediation Branch

TO: Joseph Rotola, Chief
Removal Action Branch

The purpose of this memorandum is to request assistance from the Removal Action Branch (RAB) in assessing a portion of the Cornell-Dubilier Electronics (CDE) site for removal eligibility. As you know, our branches have discussed the scope of this request over the past few weeks, and this memorandum summarizes those discussions.

In January 1997, the removal program performed a removal site evaluation for the Cornell site. This evaluation included sediment data available at that time for the Bound Brook. Specifically, there is reference to a sediment sample collected from the stream near the rear of the property, at a concentration of 550 ppm for PCBs. In addition, the following sampling events have since been performed by the removal program for the Bound Brook:

1. In August through December 1997, the EPA Removal Action Branch collected surface and subsurface soil samples from the banks and sediment samples from the streambed along the Bound Brook. Approximately 2.4 miles of the Bound Brook was investigated. The results of this investigation are summarized in the "Soil and Sediment Sampling and Analysis Report", dated 09/07/98.

2. In June 1999, soil sampling activities were performed by the EPA Removal Action Branch to characterize PCB contamination in the flood plain of the Bound Brook in Reaches 5 and 6 (as defined in the "Soil and Sediment Sampling and Analysis Report, dated 09/07/98). Reaches 5 and 6 had the highest

mean surface soil PCB concentrations of the areas investigated. The four areas chosen for this investigation were selected based on their proximity to high use areas. Refer to the "Flood plain Soil/Sediment Sampling and Analysis Summary Report", dated 01/17/00 for the results of this investigation.

3. In April 1998, REAC performed an ecological evaluation for the Bound Brook. The objectives were to 1) to investigate the nature and extent of contamination within the Bound Brook downstream of the Cornell-Dubilier Electronics site; 2) to conduct an ecological risk assessment of a portion of the Bound Brook and its associated flood plain downstream of the Cornell-Dubilier Electronics site, and 3) to collect and analyze fish fillets from the Bound Brook downstream of the Cornell-Dubilier Electronics site for a human health risk assessment. Refer to the "Ecological Risk Assessment", dated July 1999.

These data resulted in fishing advisories for portions of the Bound Brook, New Market Pond and Spring Lake; however, no other removal response actions were deemed to be necessary at the time for the brook.

In April 2007, while exploring the brook adjacent to the site, representatives of the Edison Wetlands Association (EWA) discovered remnants of capacitors outside the fenced area of the site. While capacitors have been discovered previously along the banks of the brook adjacent to the site, the disposal patterns of CDE are not fully known and the discovery of these additional capacitors prompted several actions. Remedial Project Manager Pete Mannino and other members of our remedial action team currently on site collected obvious debris, posted additional signs, and now do periodic inspections of this area. In addition, the offices of Senators Lautenberg and Menendez, at EWA's urging, requested that EPA reconsider the removal eligibility of the Bound Brook.

If you have any questions about this request please speak with me or Pete Mannino at (212) 637-4395.

Appendix 3

Cornell-Dubilier Electronics, Inc. Site

Test Pit Trip Report [Weston Solutions, Inc. (U.S. EPA Removal Support Team (RST)] dated June 9, 2008

Weston Solutions, Inc.
Suite 201
1090 King Georges Post Road
Edison, New Jersey 08837-3703
732-585-4400 • Fax 732-225-7037
www.westonsolutions.com

REMOVAL SUPPORT TEAM 2
EPA CONTRACT EP-W-06-072

June 9, 2008

Mr. Nicholas Magriples, OSC
U.S. Environmental Protection Agency
Removal Action Branch
2890 Woodbridge Avenue
Edison, NJ 08837

EPA CONTRACT NO: EP-W-06-072
TDD NO: TO-0007-0115
DOCUMENT CONTROL NO: RST 2-02-F-0542
SUBJECT: REVISED-TEST PIT OBSERVATION LOG AND FIGURE - Cornell – Dubilier Electronics Site (Bound Brook), South Plainfield, Middlesex County, New Jersey.

Dear Mr. Magriples:

Enclosed please find the revised Test Pit Observation Log and figure depicting the eight pit locations at the Cornell – Dubilier Electronics Site (Bound Brook) located in South Plainfield, New Jersey. The test pits were installed on May 14, 2008. The revisions reflect comments received on June 3, 2008.

If you have any questions, please do not hesitate to call me at (919) 424-2242.

Sincerely,

Weston Solutions, Inc.

Tara Rowland
Removal Support Team 2

Enclosure

cc: TDD File No.: TO-0007-0115
J. Brennan

Test Pit Observation at the Cornell Dubilier Site - May 14, 2008

Pit #	Depth (feet)	Air Monitoring VOCs ppm	CO ppm	LEL %	H_2S ppm	Oxy %	Comments
1	This pit was excavated within an embankment situated adjacent to the Bound Brook. The approximate dimensions of the pit were 16 feet long by by 4 feet wide by 4 feet deep.						
	1'	0.0	2.0	0.0	0.0	20.9	Dark soil with debris (a ceramic cup, coils and springs). There was also a railroad tie.
	2'	0.0	2.0	0.0	0.0	20.9	Dark soil with debris such as (ceramic pieces, coils, springs, and wood pieces) .
	3'	0.0	2.0	0.0	0.0	20.9	Dark soil with metal pieces. There was various debris ranging from metal parts to bricks and stones.
	4'	0.0	2.0	0.0	0.0	20.9	Dark soil with debris (metal pieces originating from possible metals sheets). The western end of the pit contained most of the debris.
2	This pit was excavated along the silt fence, in a relatively flat area, near the top of the embankment just upstream of the twin culverts through which the Bound Brook passes. The approximate dimensions of the pit were 10 feet long by 4 feet wide by 3 1/2 feet deep.						
	1'	0.0	2.0	0.0	0.0	20.9	Reddish brown soil sandy silt with bricks.
	2'	0.0	1.0	0.0	0.0	20.9	Capacitors found with redddish brown soil with wood and bricks.
	3'	0.0	1.0	0.0	0.0	20.9	More capacitors found intermixed with reddish brown soil.
	3.5'	0.0	2.0	0.0	0.0	20.9	Reddish brown to brown with approximately 5% clayey soil.
3	The pit was excavated within an embankment situated adjacent to a wetland area that borders the Bound Brook. The embankment was estimated to be 15 to 18 feet high. The approximate dimensions of the pit were 11 feet long by 4 feet wide by 3 feet deep.						
	1'	0.0	2.0	0.0	0.0	20.9	Dark soil with organic matter, i.e, roots.
	2'	0.0	2.0	0.0	0.0	20.9	Dark soil with organic matter, i.e, roots.
	3'	0.0	2.0	0.0	0.0	20.9	Dark soil with organic matter, i.e, roots.
4	The pit was excavated within an embankment situated adjacent to a wetland area that borders the Bound Brook. The embankment was estimated to be 15-18 feet high. The approximate dimensions of the pit were 10 feet long by 4 feet wide by 3 feet deep.						
	1'	0.0	2.0	0.0	0.0	20.9	Dark soil with organic matter, i.e, roots.
	2'	0.0	1.0	0.0	0.0	20.9	Dark soil with organic matter, i.e., roots and some brick pieces.
	3'	0.0	1.0	0.0	0.0	20.9	Dark soil with whole and pieces of bricks.

Test Pit Observation at the Cornell Dubilier Site - May 14, 2008

Pit #	Depth (feet)	Air Monitoring VOCs ppm	CO ppm	LEL %	H_2S ppm	Oxy %	Comments
5	The pit was excavated within an embankment situated adjacent to a wetland area that borders the Bound Brook. The embankment was estimated to be 15-18 feet high. The approximate dimensions of the pit were 10 feet long by 4 feet wide by 4 feet deep.						
	1'	0.0	1.0	0.0	0.0	20.9	Dark soil with organic matter, i.e. roots.
	2'	0.0	1.0	0.0	0.0	20.9	Dark soil with organic matter, i.e., roots and some brick pieces.
	3'	0.0	2.0	0.0	0.0	20.9	Dark soil with whole and pieces of bricks.
	4'	0.0	2.0	0.0	0.0	20.9	Dark soil with whole and pieces of bricks.
6	The pit was excavated along the silt fence, in a relatively flat area, near the fence line on the southern edge of the Site. The approximate dimensions of the pit were 12 feet long by 4 feet wide by 3 feet deep.						
	1'	0.0	1.0	0.0	0.0	20.9	Soil is loose and it contains microcapacitor parts. The clayey soil is a brownish-red. Plastic film that is used in microcapacitors were noted.
	2'	0.0	1.0	0.0	0.0	20.9	Soil is loose and contains microcapacitor parts. The clayey soil is a brownish-red. Plastic film that is used in microcapacitors were noted. Visual dark wall staining at 2.5'.
	3'	0.0	2.0	0.0	0.0	20.9	Soil is loose and it contains microcapacitor parts. The clayey soil is a brownish-red. Plastic film that is used in microcapacitors were noted.
7	The pit was excavated along the silt fence, in a relatively flat area, near the fence line on the southern edge of the Site. The approximate dimensions of the pit were 10 feet long by 4 feet wide by 2 feet deep.						
	1'	0.0	2.0	0	0	20.9	Plastic film used in microcapacitors were noted. Soil contained mixed debris, along with wood blocks. A capacitor top was found at approximately 1.5' deep.
	2'	0.0	1.0	0	0	20.9	The soil is a brownish-red and has mixed metal debris.
8	The pit was excavated within an embankment situated adjacent to the Bound Brook. The embankment was estimated to be 15-18 feet high. The excavation was widened to determine whether the bricks extended outside of the original excavation. The approximate dimensions of the pit were 10 feet long by 8 feet wide by 4 feet deep.						
	1'	0.0	2.0	0.0	0.0	20.9	Dark soil with organic matter, i.e, roots.
	2'	0.0	2.0	0.0	0.0	20.9	Dark soil containing brick pieces and whole bricks. A lot of bricks located within this area. Soil contained some ash.
	3'	0.0	2.0	0.0	0.0	20.9	Dark soil with whole and brick pieces. There appears to be some ash mixed with the soil.
	4'	0.0	2.0	0.0	0.0	20.9	Dark soil with whole and brick pieces. There are a lot of bricks located within this area.

RIPTION	LENGTH	WIDTH	DEPTH
st Pit 1	16	4	4
st Pit 2	10	4	3.5
st Pit 3	11	4	3
st Pit 4	10	4	3
st Pit 5	10	4	4
st Pit 6	12	4	3
st Pit 7	10	4	2
st Pit 8	10	8	4

REMENTS ARE REPRESENTED IN FEET

"GlobeXplorer", 1:2400, 0.3048m, "CIR"

oratory Test Pits

ocation of Test Pit.

Weston Solutions, Inc.

In Association With
Avatar Environmental, LLC,
Innovative Technical Solutions, Inc.
and Scientific and Environmental Associates, Inc.

Figur
Exploratory Test
CORNELL-DU
SOUTH PLAINFIEL
U.S. ENVIRONMENTAL
REMOVAL SUP
CONTRACT #

DRAWN BY:	F. CAMPBE
EPA OSC:	N. MAGRIP
RST SPM:	T. ROWLA
FILENAME:	CORNELL-I

DATE MODIFIED: 06/04/2008

Appendix 4

Cornell-Dubilier Electronics, Inc. Site

Trip Report Summarizing Visual Inspection of Bound Brook & Wetlands Area [Weston Solutions, Inc. (U.S. EPA Removal Support Team (RST)] dated July 28, 2008

Weston Solutions, Inc.
Suite 201
1090 King Georges Post Road
Edison, New Jersey 08837-3703
732-585-4400 • Fax 732-225-7037
www.westonsolutions.com

REMOVAL SUPPORT TEAM 2
EPA CONTRACT EP-W-06-072

July 28, 2008

Mr. James Kearns, OSC
U.S. Environmental Protection Agency
Removal Action Branch
2890 Woodbridge Avenue
Edison, NJ 08837

EPA CONTRACT NO: EP-W-06-072
TDD NO: TO-0009-0027
DOCUMENT CONTROL NO: RST 2-02-F-0594
SUBJECT: Revised Photographic Documentation and Excel Spreadsheet Capacitor Search at the Cornell – Dubilier Electronics Site, South Plainfield, Middlesex County, New Jersey

Dear Mr. Kearns:

Enclosed please find the revised Excel spreadsheet, Erosion Control Plan map and corresponding Photographic Documentation Log used to document findings during the capacitor search conducted at the Cornell – Dubilier Electronics Site on July 8, 2008.

If you have any questions, please do not hesitate to call me at (732) 585-4413.

Sincerely,

Weston Solutions, Inc.

Jeffrey Jager
Removal Support Team 2

Enclosure
cc: TDD File No.: TO-0009-0027

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NEW JERSEY

Item No.	Date Located	Time Located	RST 2 / EPA	Latitude	Longitude	General Location	Item Description
1	7/08/08	0730	J. Kearns	-74.409876	40.575226	North bank of Reach 2 at the double culvert	Foil
2	7/08/08	0730	K. Scott	-74.410036	40.575208	South bank of Reach 2 at the double culvert	Foil
3	7/08/08	0750	K. Scott	-74.409977	40.575364	South bank of Reach 2, Approx. 30' downstream of the double culvert	Unknown white structure - possible piece of capacitor.
4	7/08/08	0752	K. Scott	-74.410012	40.575335	South bank of Reach 2, Approx. 30' downstream of the double culvert	Suspected inner parts of capacitor.
5	7/08/08	0810	J. Jager	-74.410517	40.576193	North bank of Reach 2	Item resembles a metal cap. Suspected to be associated with capacitor equipment.
6	7/08/08	0830	K. Scott	-74.410817	40.576397	South bank of Reach 2 at outfall pipe near the bridge between Reach 2 & 3	Small piece of metal. "Ramsey" written on it.
7	7/08/08	0845	J. Brennan	-74.410574	40.575917	South bank of Reach 2 at the outfall pipe	Area of strong petroleum-like odor and oil-like sheen.
8	7/08/08	0925	J. Brennan/J. Jager	-74.409781	40.575173	North bank of Reach 2 at the single culvert	Suspected capacitor part. Observed two-thirds buried in tongue of Bound Brook.
9	7/08/08	0900	J. Jager			RR spur between Reach's 1 & 2	Foil; GPS position not recorded (No signal). No photograph collected.
10	7/08/08	1000	J. Jager	-74.410131	40.575082	South Bank of Reach 1 / Immediately upstream of the double culvert	Foil
11	7/08/08	1005	J. Brennan	-74.410109	40.575075	South Bank of Reach 1 / Immediately upstream of the double culvert	Foil

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NEW JERSEY

Item No.	Date Located	Time Located	RST 2 / EPA	Latitude	Longitude	General Location	Item Description
12	7/08/08	1007	J. Kearns	-74.410091	40.57508	South Bank of Reach 1 / Immediately upstream of the double culvert	Oil-stained wood block
13	7/08/08	1015	J. Kearns	-74.410102	40.575033	South Bank of Reach 1 / Immediately upstream of the double culvert	Foil
14	7/08/08	1018	J. Kearns	-74.41011	40.574988	South Bank of Reach 1	Oil-stained wood block
15	7/08/08	1019	J. Kearns	-74.410102	40.575018	South Bank of Reach 1	Foil
16	7/08/08	1039	J. Kearns	-74.410081	40.574971	South Bank of Reach 1	Oil-stained wood block
17	7/08/08	1045	J. Kearns	-74.410072	40.574968	South Bank of Reach 1	Inner part of capacitor (paper/foil roll)
18	7/08/08	1047	J. Kearns	-74.410109	40.574969	South Bank of Reach 1	Inner part of capacitor (paper/foil roll)
19	7/08/08	1040	J. Kearns	-74.410115	40.574973	South Bank of Reach 1	Inner part of capacitor (paper/foil roll)
20	7/08/08	1050	J. Kearns	-74.410126	40.574941	South Bank of Reach 1	Oil-stained wood block
21	7/08/08	1055	J. Kearns	-74.410122	40.574905	South Bank of Reach 1	Foil and capacitor marked "Cornell-Dubilier"
22	7/08/08	1110	J. Kearns	-74.410038	40.574855	South Bank of Reach 1	Oil-stained wood block
23	7/08/08	1112	J. Kearns	-74.410046	40.574843	South Bank of Reach 1	Piece of metal.Suspected to be associated with capacitor equipment.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NEW JERSEY

Item No.	Date Located	Time Located	RST 2 / EPA	Latitude	Longitude	General Location	Item Description
24	7/08/08	1130	J. Jager/J. Kearns	-74.410098	40.574771	South Bank of Reach 1	Oil-stained wood block
25	7/08/08	1140	J. Jager/J. Kearns	-74.410313	40.574115	South Bank of Reach 1	Inner part of capacitor (paper/foil roll)
26	7/08/08	1145	J. Jager/J. Kearns	-74.410396	40.574037	South Bank of Reach 1	Foil
27	7/08/08	1341	J. Kearns	-74.410384	40.574507	South Bank of Reach 1	Oil-stained wood block
28	7/08/08	1343	J. Kearns	-74.410384	40.574507	South Bank of Reach 1	Oil-stained wood block
29	7/08/08	1355	J. Brennan	-74.410448	40.574302	South Bank of Reach 1	Inner part of capacitor (paper/foil roll)

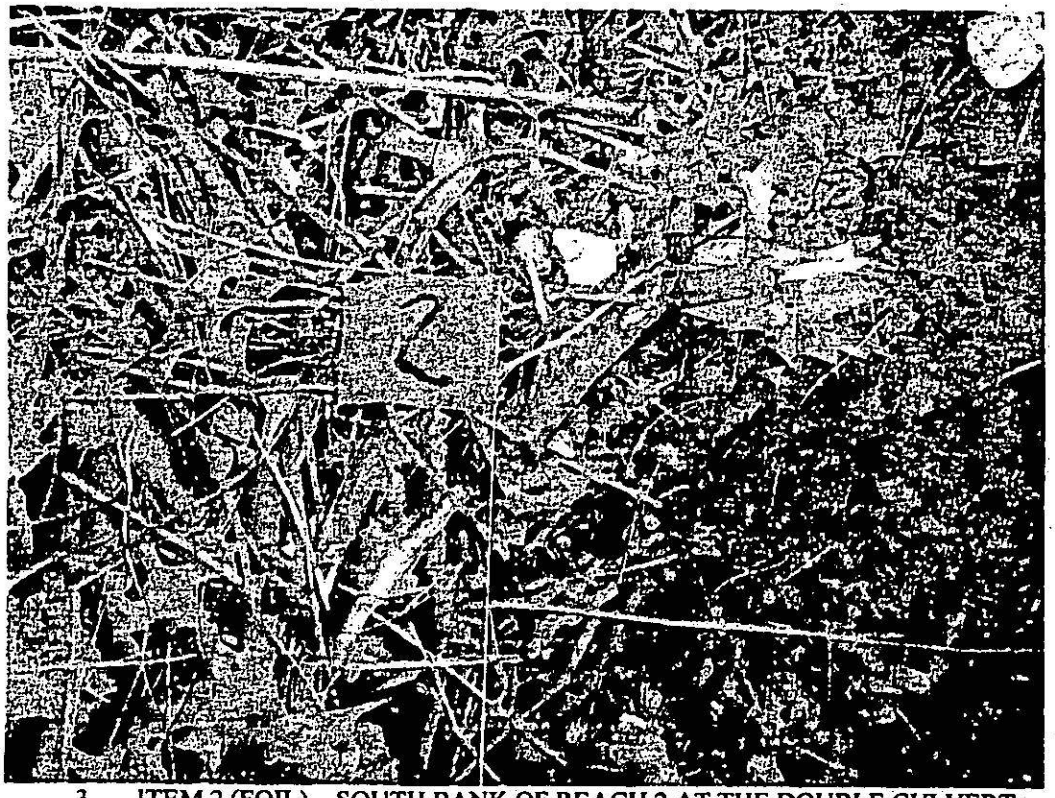
Note: Coordinates presented in Latitude/Longitude, WGS 1984, Decimal Degrees

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008

1. ITEM 1 (FOIL) - NORTH BANK OF REACH 2 AT THE DOUBLE CULVERT.

2. VIEW OF THE AREA SURROUNDING ITEM 1.

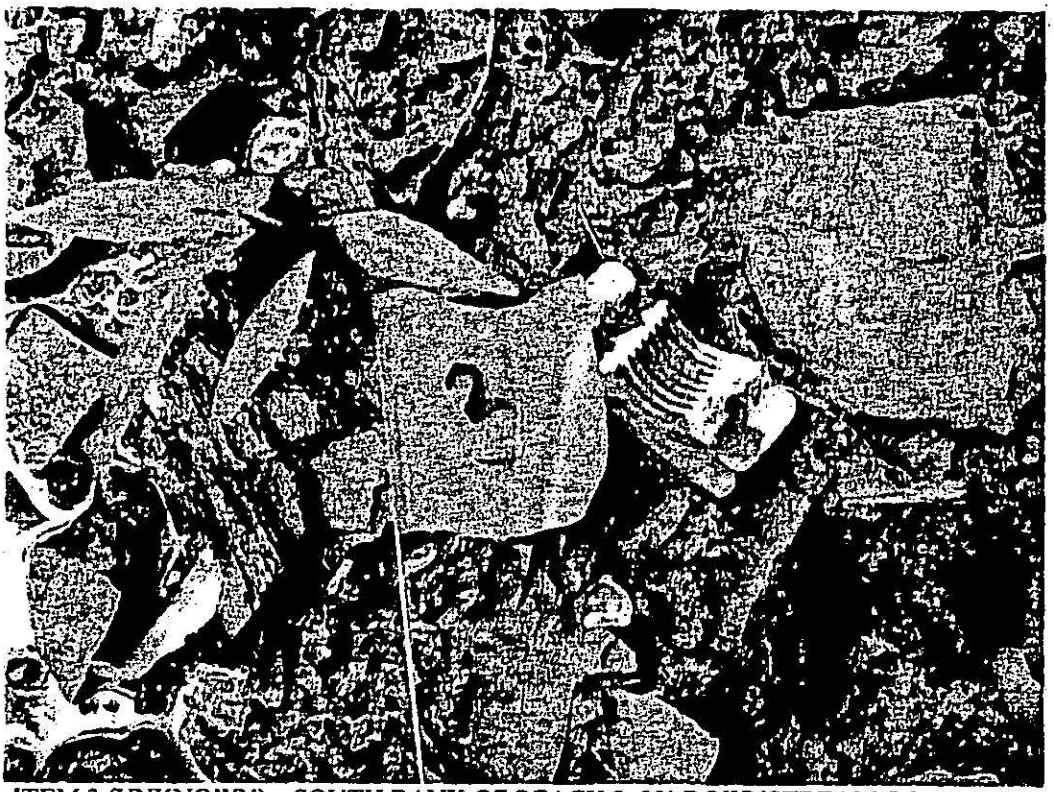
CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008



3. ITEM 2 (FOIL) – SOUTH BANK OF REACH 2 AT THE DOUBLE CULVERT.

4. VIEW OF AREA SURROUNDING ITEM 2.

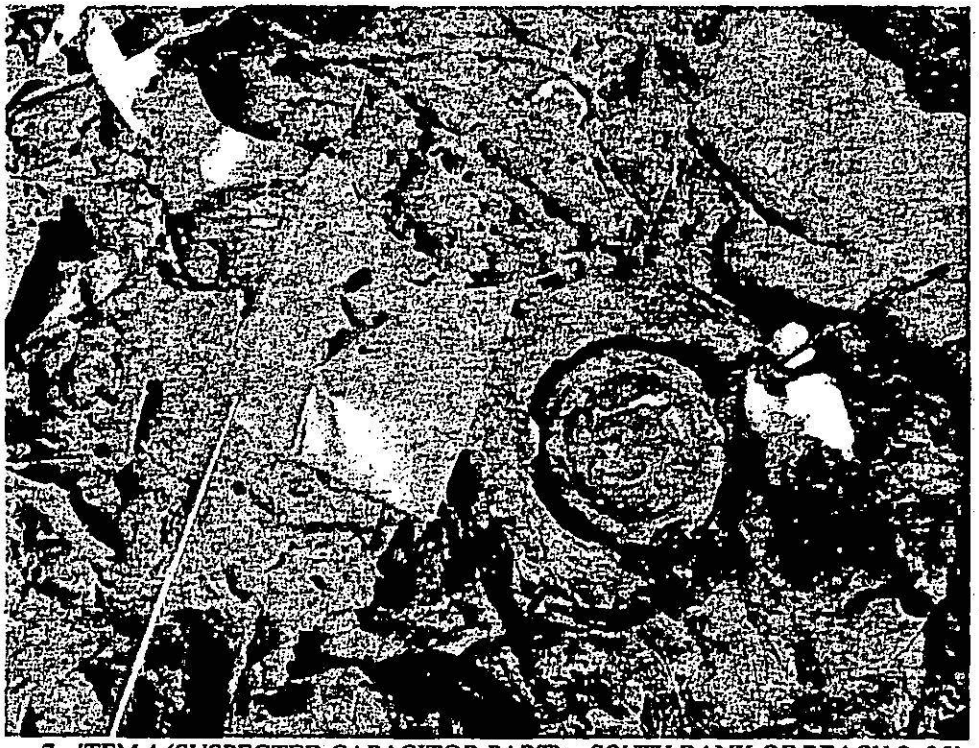
CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008



5. ITEM 3 (UNKNOWN) – SOUTH BANK OF REACH 2, 30' DOWNSTREAM OF THE DOUBLE CULVERT.

6. VIEW OF AREA SURROUNDING ITEM 3.

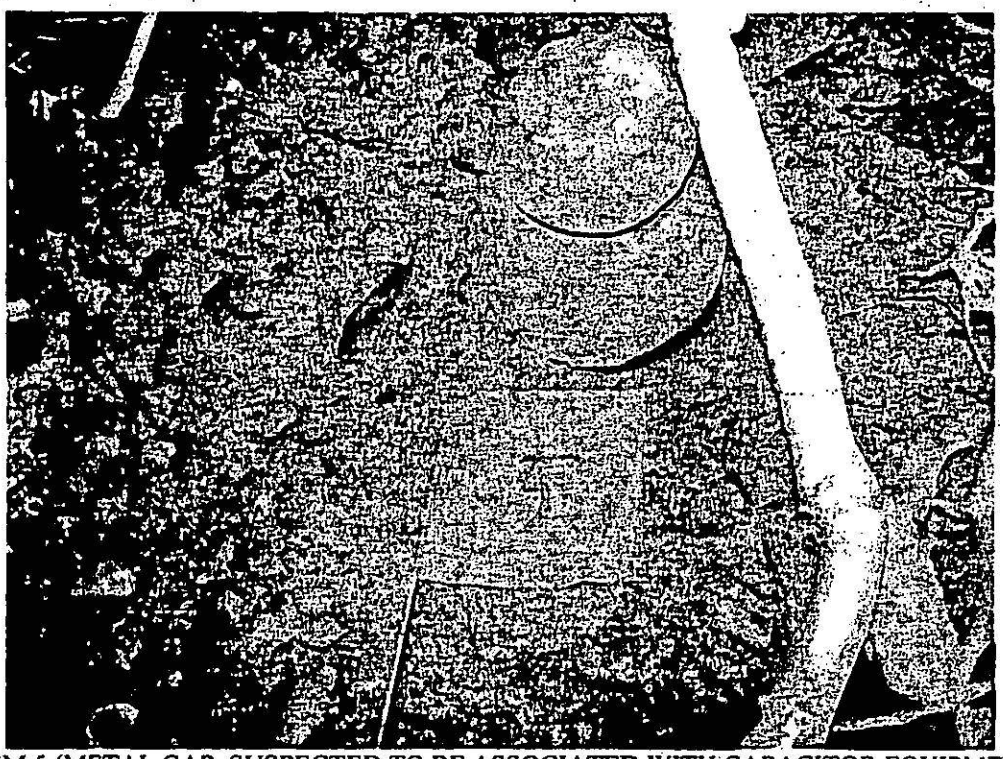
CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008



7. ITEM 4 (SUSPECTED CAPACITOR PART) – SOUTH BANK OF REACH 2, 35' DOWNSTREAM OF THE DOUBLE CULVERT.

8. VIEW OF THE AREA SURROUNDING ITEM 4.

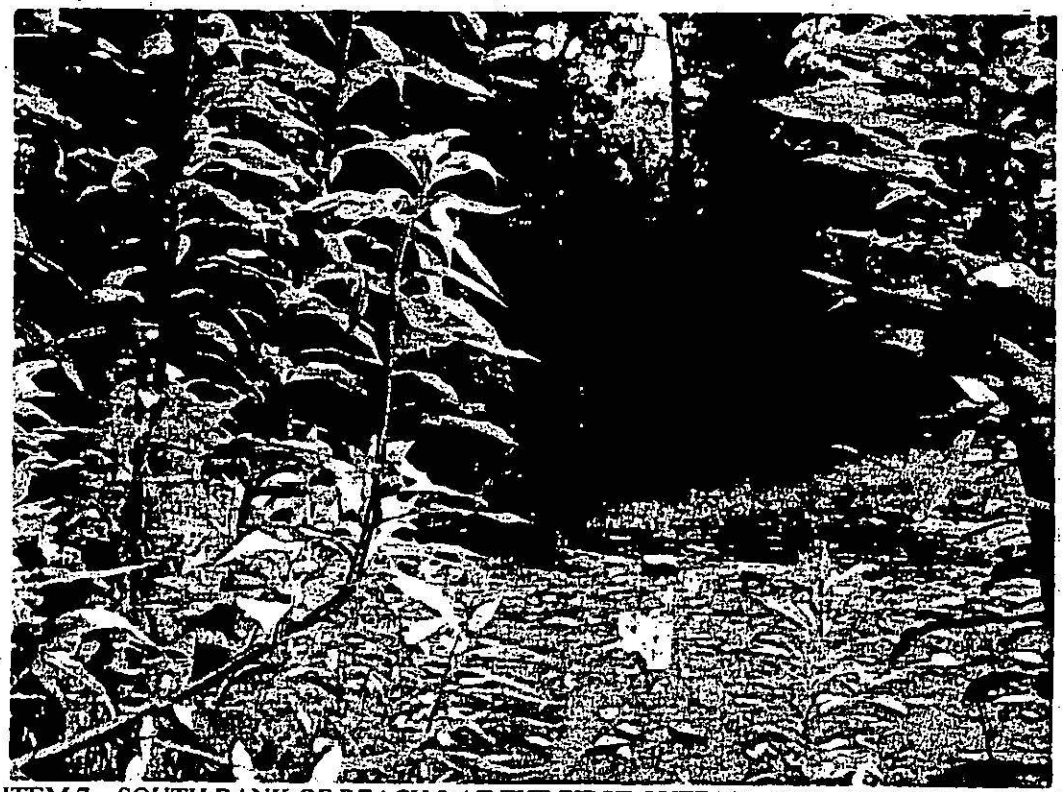
CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008



9. ITEM 5 (METAL CAP. SUSPECTED TO BE ASSOCIATED WITH CAPACITOR EQUIPMENT.) – NORTH BANK OF REACH 2, APPROX. 100' UPSTREAM OF THE BRIDGE BETWEEN REACH 2 AND REACH 3.

10. VIEW OF AREA SURROUNDING ITEM 5.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008



13. ITEM 7 – SOUTH BANK OF REACH 2 AT THE FIRST OUTFALL PIPE. INDICATES AN AREA OF STRONG PETROLEUM-LIKE ODOR AND AN OIL-LIKE SHEEN ON THE WATER'S SURFACE.

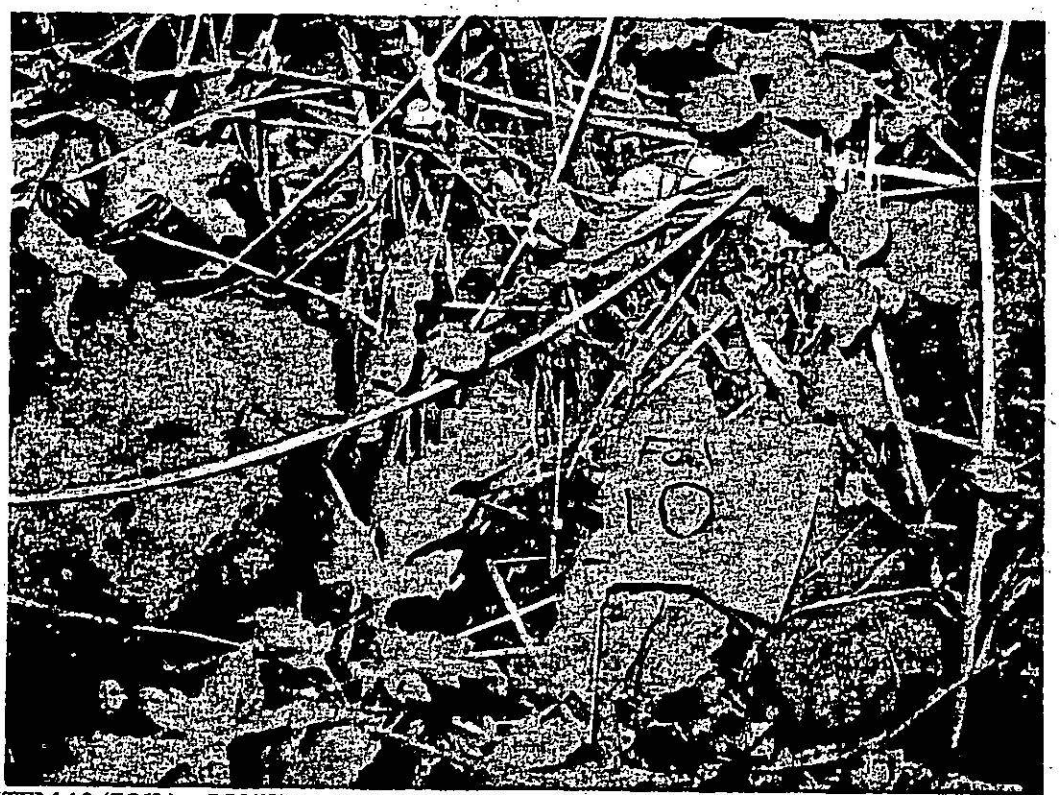
14. VIEW OF THE SWALE FROM THE FIRST OUTFALL PIPE SURROUNDING ITEM 7.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008

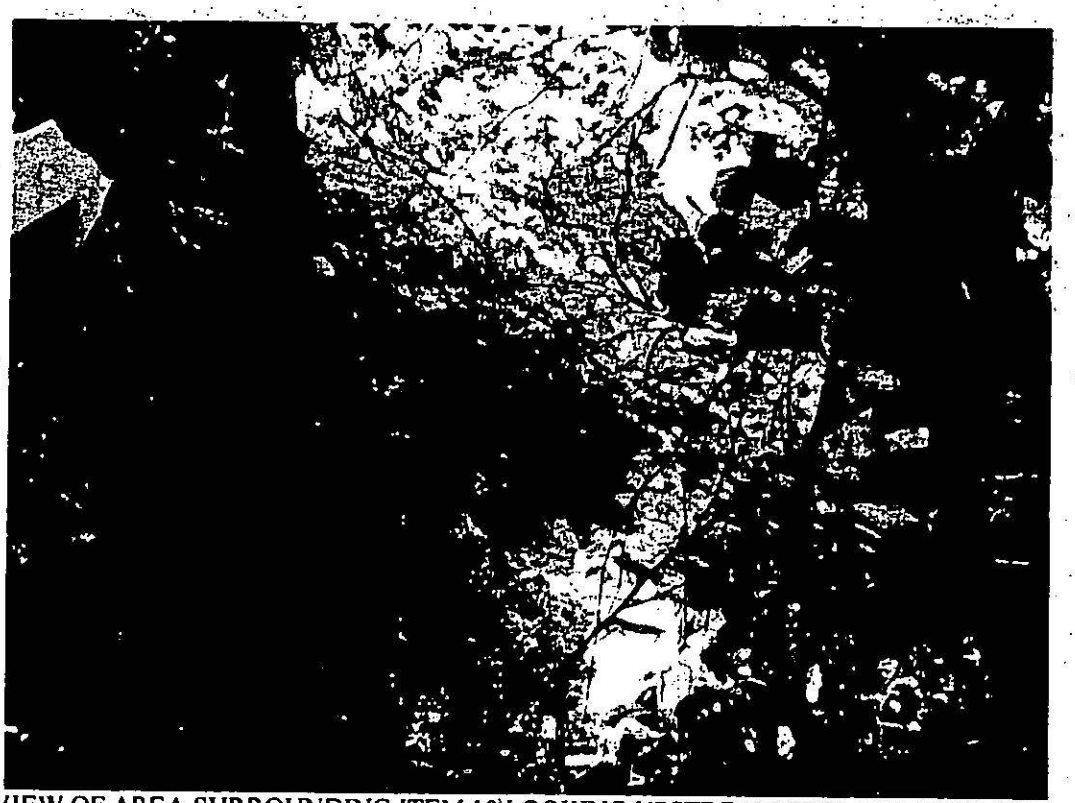
15. ITEM 8 (SUSPECTED CAPACITOR PART) –REACH 2 IN THE TONGUE OF THE SINGLE CULVERT.

16. VIEW OF THE AREA SURROUNDING ITEM 8.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008



17. ITEM 10 (FOIL) – SOUTH BANK OF REACH 1 IMMEDIATELY UPSTREAM OF THE DOUBLE CULVERT.



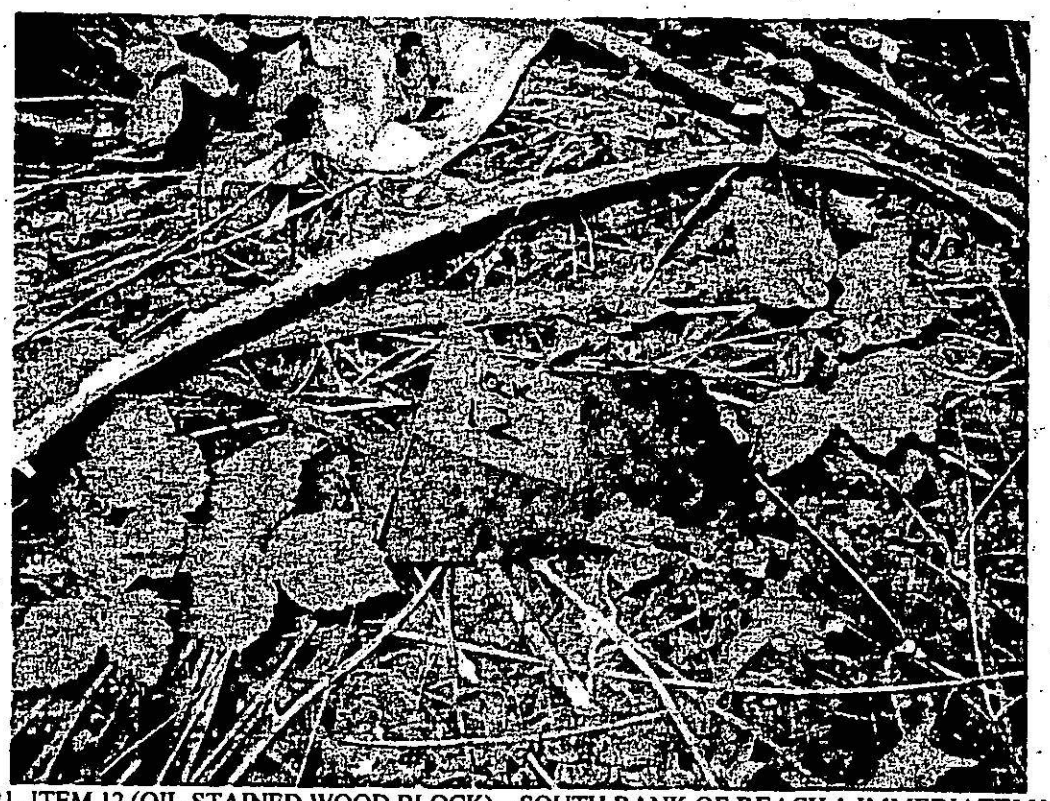
18. VIEW OF AREA SURROUNDING ITEM 10 LOOKING UPSTREAM FROM THE SOUTH BANK.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008

19. ITEM 11 (FOIL) – SOUTH BANK OF REACH 1 IMMEDIATELY UPSTREAM OF THE DOUBLE CULVERT.

20. VIEW OF AREA SURROUNDING ITEM 11 LOOKING UPSTREAM FROM THE SOUTH BANK.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008



21. ITEM 12 (OIL-STAINED WOOD BLOCK) – SOUTH BANK OF REACH 1 IMMEDIATELY UPSTREAM OF THE DOUBLE CULVERT.

22. VIEW OF CHAIN LINK FENCE ADJACENT TO THE DOUBLE CULVERT.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008

23. ITEM 13 (FOIL) – SOUTH BANK OF REACH 1 IMMEDIATELY UPSTREAM OF THE DOUBLE CULVERT.

24. VIEW OF THE AREA SURROUNDING ITEM 13 LOOKING UPSTREAM FROM THE SOUTH BANK.

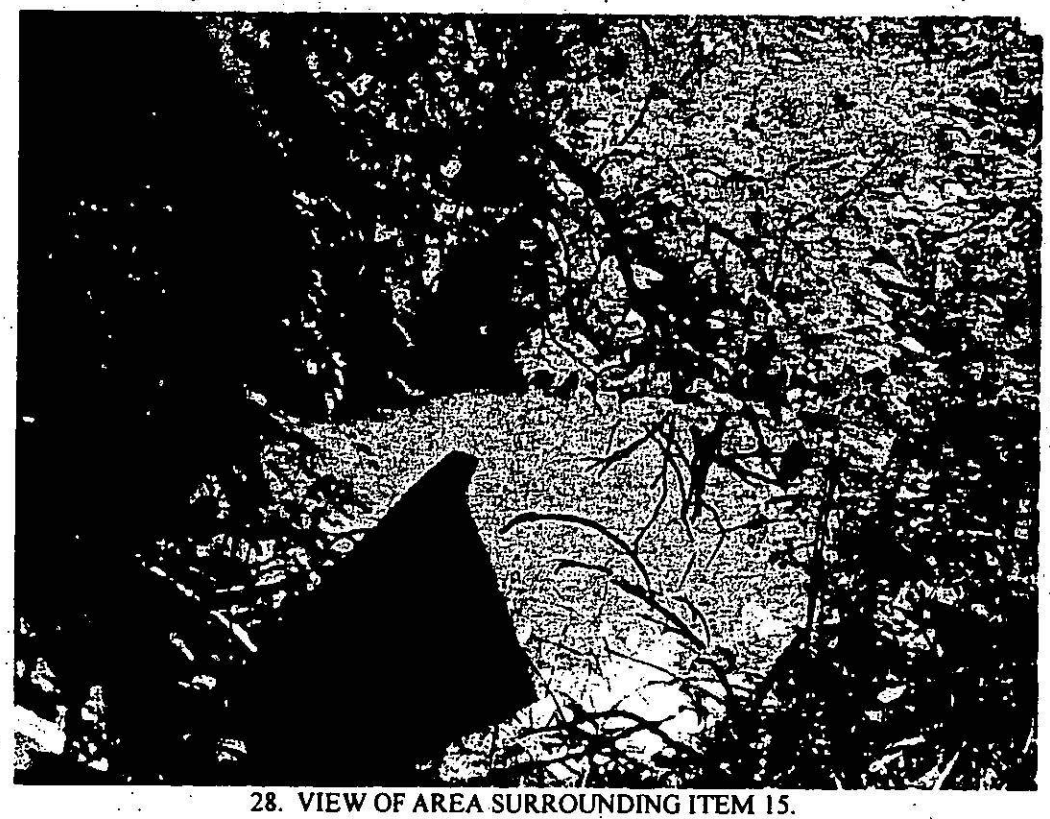
CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008

25. ITEM 14 (OIL-STAINED WOOD BLOCK) – SOUTH BANK OF REACH 1 UPSTREAM OF THE DOUBLE CULVERT

26. VIEW OF AREA SURROUNDING ITEM 14 LOOKING UPSTREAM

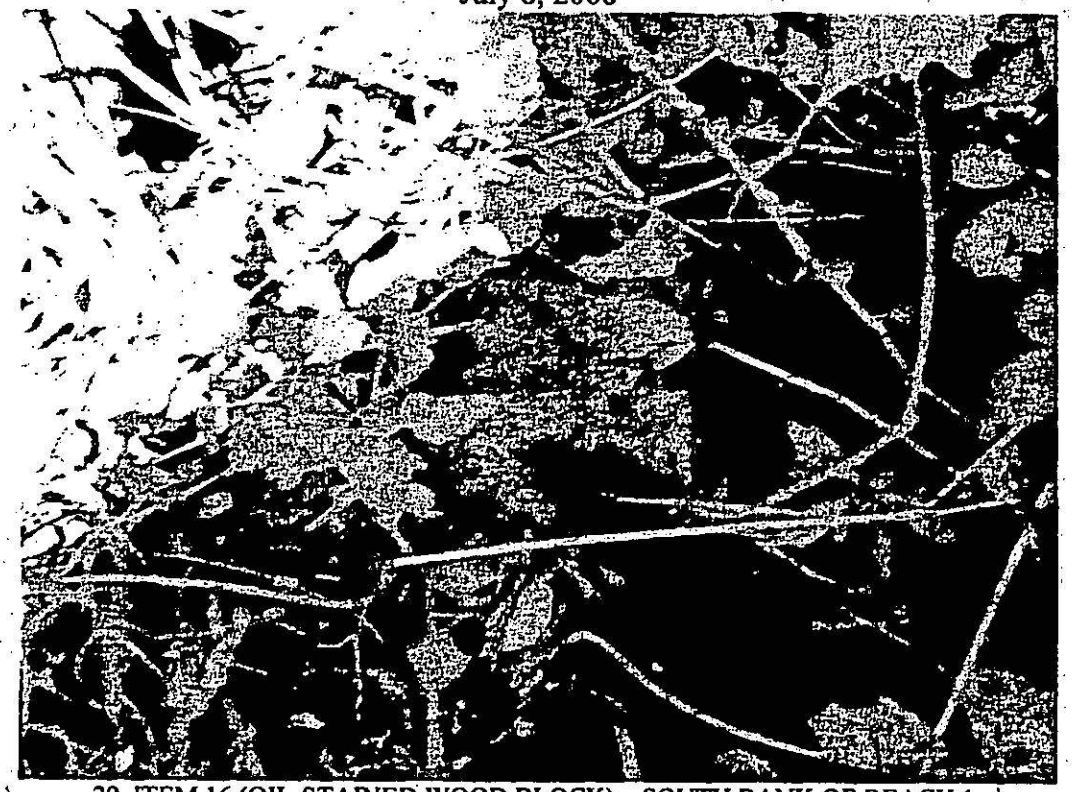
CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008

27. ITEM 15 (FOIL) – SOUTH BANK OF REACH 1.



28. VIEW OF AREA SURROUNDING ITEM 15.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008



29. ITEM 16 (OIL-STAINED WOOD BLOCK) – SOUTH BANK OF REACH 1.

30. VIEW OF AREA SURROUNDING ITEM 16.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008

31. ITEM 17 (INNER PART OF CAPACITOR, PAPER/ FOIL ROLL) – SOUTH BANK OF REACH 1.

32. VIEW OF AREA SURROUNDING ITEM 17.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008

33. ITEM 18 (INNER PART OF CAPACITOR, PAPER/FOIL ROLL) – SOUTH BANK OF REACH 1.

34. VIEW OF AREA SURROUNDING ITEM 18.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008

35. ITEM 19 (INNER PART OF CAPACITOR, PAPER/ FOIL ROLL) – SOUTH BANK OF REACH 1.

36. VIEW OF AREA SURROUNDING ITEM 19.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008

37. ITEM 20 (OIL-STAINED WOOD BLOCK) – SOUTH BANK OF REACH 1.

38. VIEW OF AREA SURROUNDING ITEM 20.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008

39. ITEM 21 (FOIL & CAPACITOR MARKED "CORNELL-DUBILIER") – SOUTH BANK OF REACH 1.

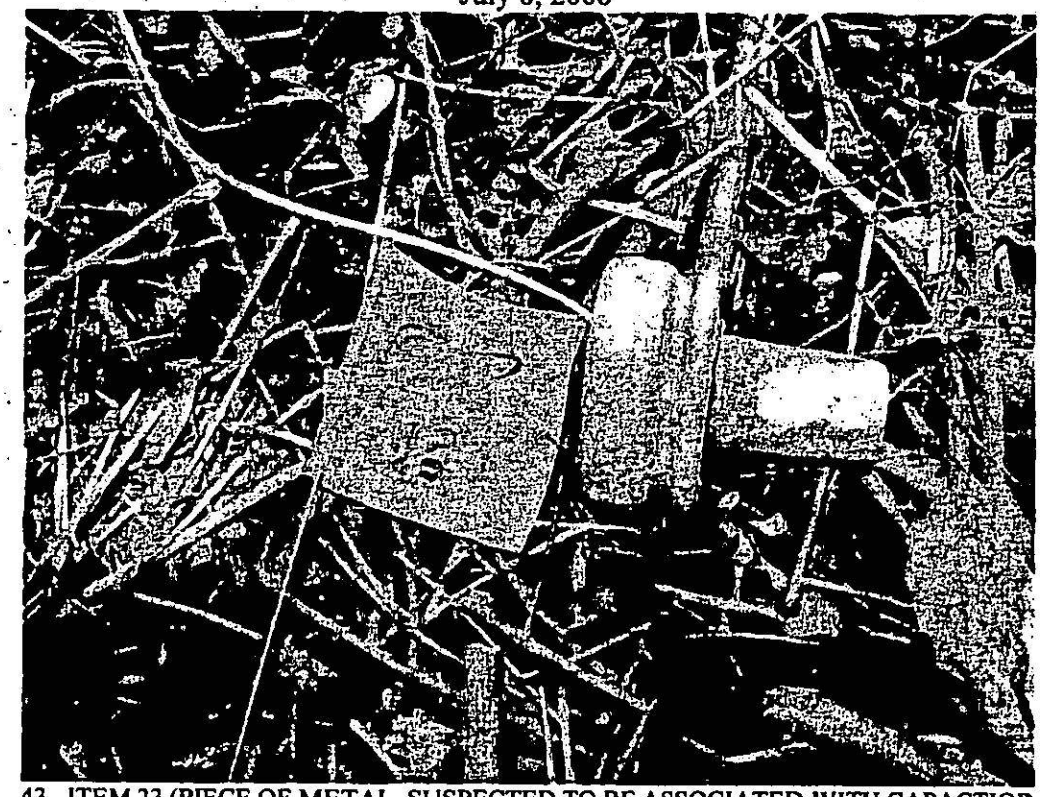
40. VIEW OF AREA SURROUNDING ITEM 21.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008

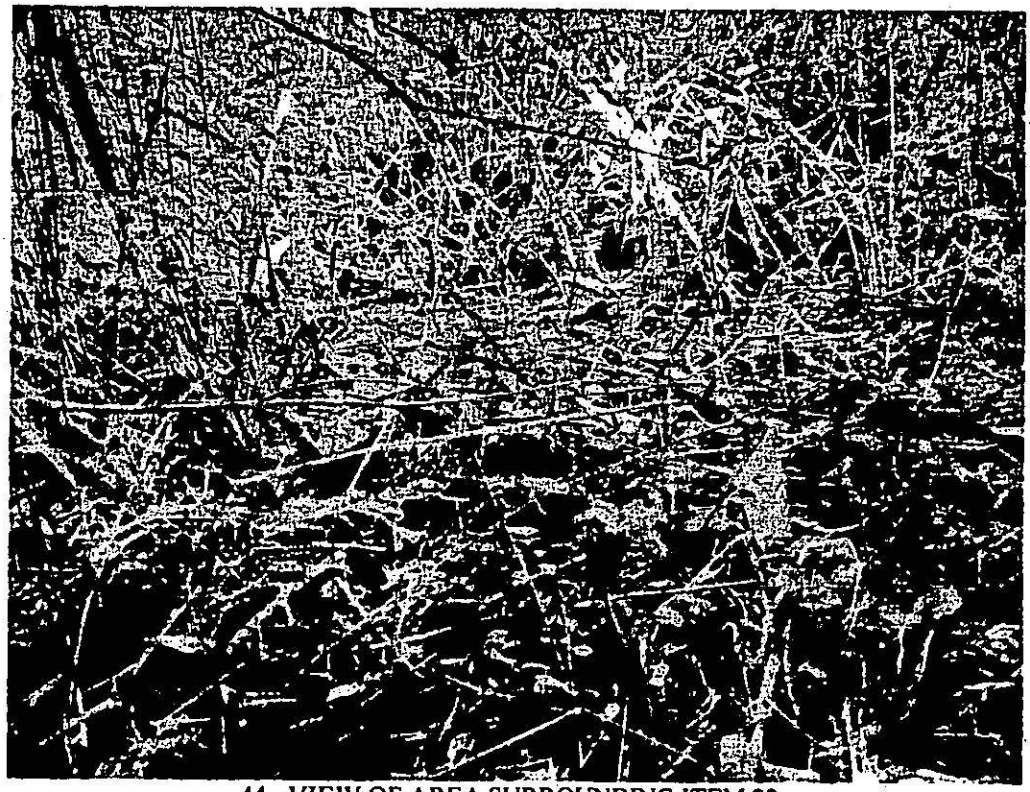
41. ITEM 22 (OIL-STAINED WOOD BLOCK) – SOUTH BANK OF REACH 1.

42. VIEW OF AREA SURROUNDING ITEM 22.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008



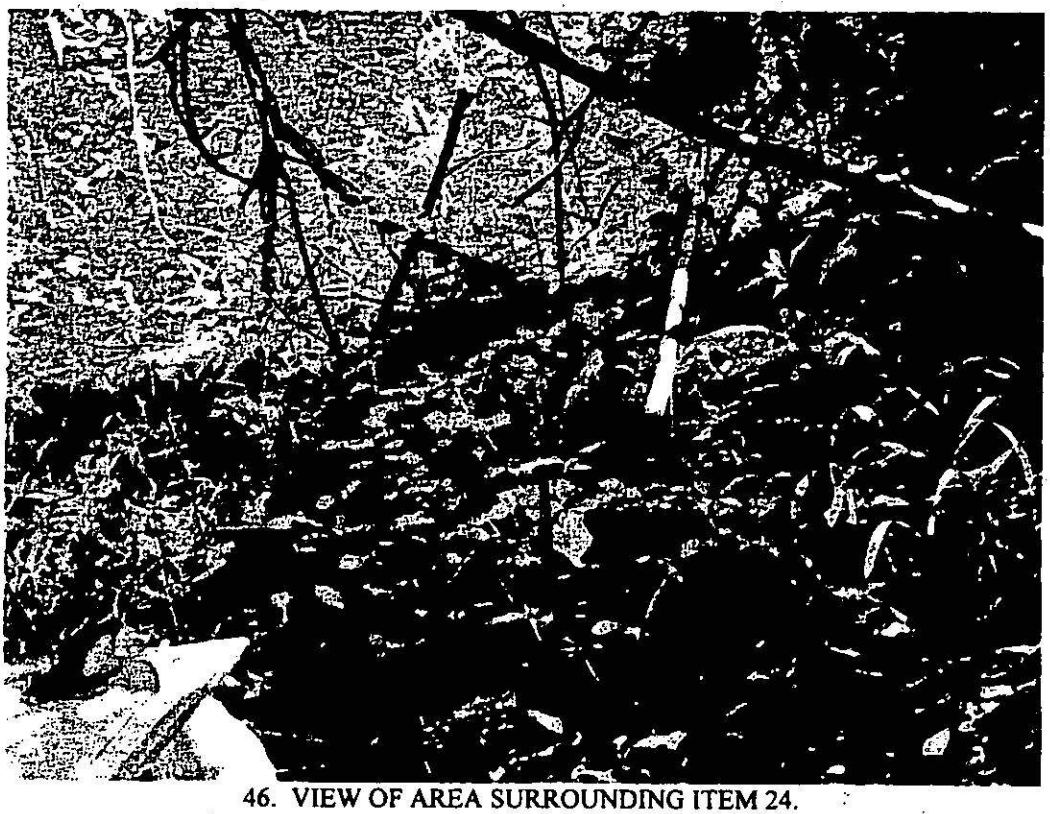
43. ITEM 23 (PIECE OF METAL. SUSPECTED TO BE ASSOCIATED WITH CAPACTIOR EQUIPMENT) – SOUTH BANK OF REACH 1.



44. VIEW OF AREA SURROUNDING ITEM 23.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008

45. ITEM 24 (OIL-STAINED WOOD BLOCK) – SOUTH BANK OF REACH 1.



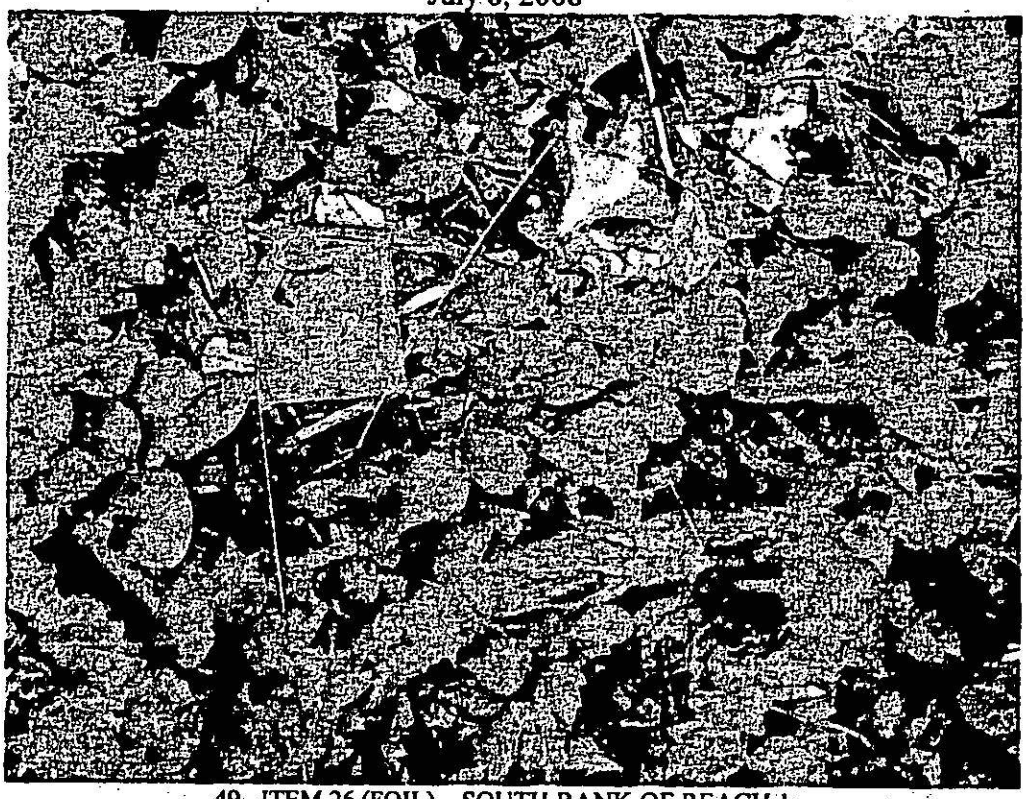
46. VIEW OF AREA SURROUNDING ITEM 24.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008

47. ITEM 25 (INNER PART OF CAPACITOR) – SOUTH BANK OF REACH 1.

48. VIEW OF AREA SURROUNDING ITEM 25.

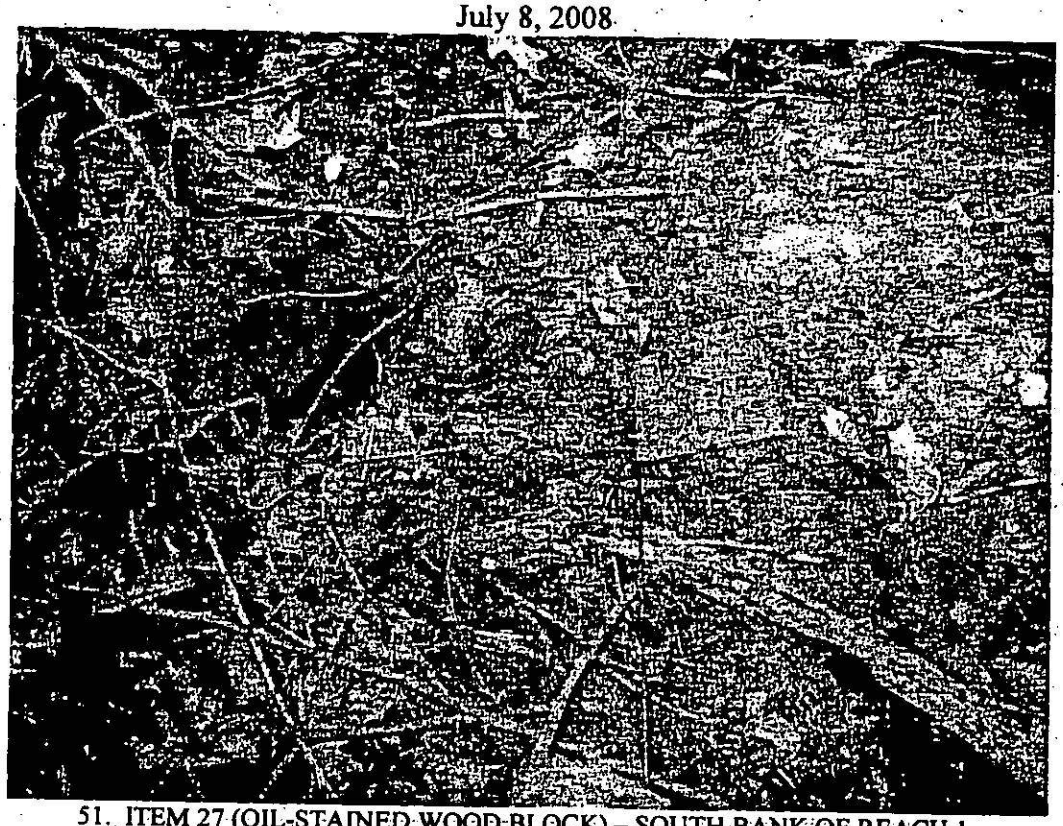
CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008



49. ITEM 26 (FOIL) – SOUTH BANK OF REACH 1.

50. VIEW OF AREA SURROUNDING ITEM 26.

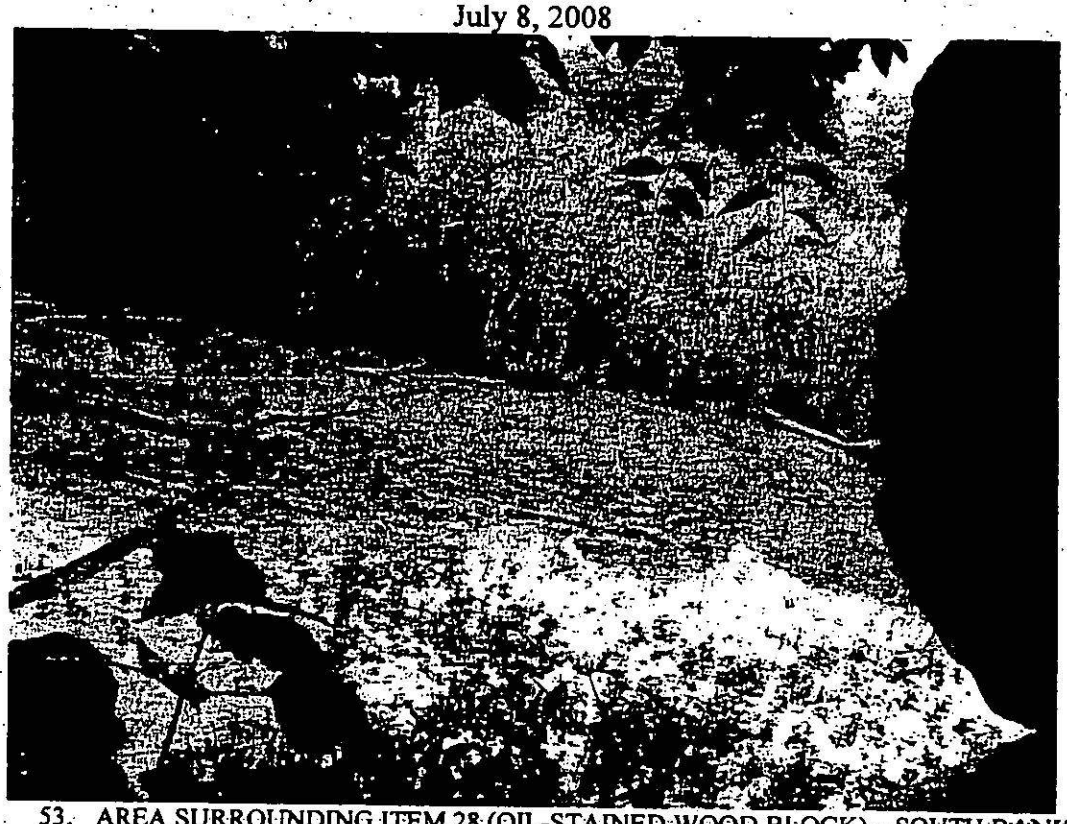
CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008



51. ITEM 27 (OIL-STAINED WOOD BLOCK) – SOUTH BANK OF REACH 1.

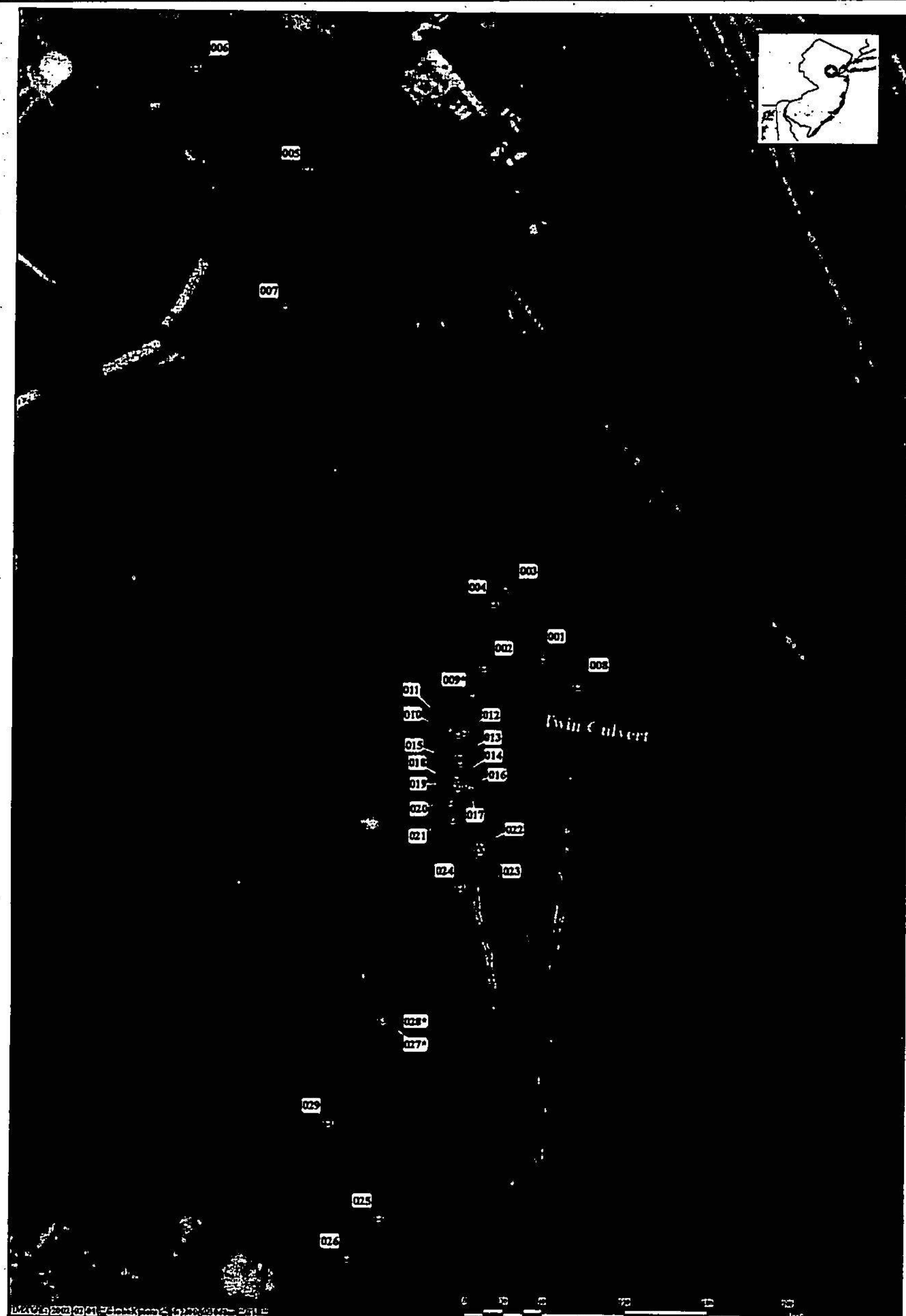
52. VIEW OF AREA SURROUNDING ITEM 27 LOOKING UPSTREAM.

CORNELL-DUBILIER ELECTRONICS SITE
SOUTH PLAINFIELD, NJ
CAPACITOR SEARCH PHOTOS
July 8, 2008



53. AREA SURROUNDING ITEM 28 (OIL-STAINED WOOD BLOCK) – SOUTH BANK REACH 1.

54. AREA SURROUNDING ITEM 29.



Legend

- Item Location

* Estimated Location of Item Found During Capacitor Search

Weston Solutions, Inc.

In Association With
Avatar Environmental, LLC,
Innovative Technical Solutions, Inc.
and Scientific and Environmental Associates, Inc.

Figure 1:
Capacitor Search - July 2008

CORNELL-DUBILIER SITE
SOUTH PLAINFIELD, NEW JERSEY

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL SUPPORT TEAM
CONTRACT # EP-W-06-072

GIS ANALYST:	F. CAMPBELL
EPA OSC:	E. KRAINS
RST PM:	[illegible]
FILENAME:	CORNELL CAPSEARCH.MXD